On Theriac to Piso, Attributed to Galen

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# *On Theriac to Piso*, Attributed to Galen

A Critical Edition with Translation and Commentary

By

Robert Leigh



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### Contents

Acknowledgements VII

Conspectus siglorum VIII Introduction 1 The Text 1 The Manuscripts 1 The Arabic Text 5 *The Latin Translations* 6 The Andromachus Poem 7 The Treatise 8 Structure and Content 8 Date 11 Authenticity 19 Self-presentation а 20 b History 20 Julius Africanus Cesti с  $\mathbf{22}$ d Doctrine—Pharmacology 24 Doctrine—Hippocrates 33 e Doctrine—Philosophy—Asclepiades f 39 Doctrine—Philosophy— $\lambda \delta \gamma \circ \zeta$  and  $\pi \epsilon \hat{\iota} \rho \alpha$ g 43 Style and Language 45 h Stylistic Features 52 i Word Frequencies 53 i Rare Words 60 k Conclusions on Authenticity 61 Note on Chapter Headings 62

#### **Text and Translation** 65

Commentary 165

Appendices 255 Bibliography 312 Index Locorum 316 General Index 324 Index of Significant Greek Terms 326

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## **Conspectus siglorum**

#### I Codices

А	Londiniensis Add. 10.058, f. 161 <sup>v</sup> –165 <sup>v</sup> . s. xv (Andromachus poem).
С	Trinity Cambridge O.2.12 s. xvi (Andromachus poem).
L	Laurentianus 74.5 140–160 s. xii–xiii.
М	Marcianus 281 s. xv.
Ν	Parisinus suppl. gr. 35 s. xv–xvi.
0	Hauniensis ant fund reg 225 f 170. s. xvi [incomplete, ending at καὶ οὕτω λοιπὸν
	ἀκριβώς = p. 76. l. 13 Kühn XIV 221.11].
Р	Parisinus 2195. s. xiii [excerpts only; see p. 2].
Q	Parisinus 2164 s. xvi.
V	Vossianus VGF 58, Leiden. s. xiv [excerpts only; see p. 2].
Х	Vindobonensis med. gr. 6 s. xiv–xv.
W	VI Fc 37 Roudnice Lobkowicz Library, Czech Republic [excerpts only; see p. 2].
Y	Yale Medical Historical Library ms. 37 s.xvi.
Arab.	Aya Sofia 3590.

#### II Editiones

Ald.	Aldine Venice 1525.
Crat.	Cratander Basle 1538.
Chart.	Chartier Paris 1639.
Kühn	Kühn Leipzig 1830.
GDRK	Heitsch 1963 (Andromachi poema).
edd.	Ald. Crat. Chart. Kühn.
Smith	Loeb Hippocrates, Vol. VII (Hipp. Epidemics).

#### III Editiones Latinae

- Rasar. Rasario Venice 1562.
- Frob. Froben Basle 1549 (tr. Andernach).
- Giun. Giunta Venice 1565 (tr. Rota).
- Iuv. Iohannes Iuvenis (= Johann Neander) Antwerp 1574.
- Chart. Chartier Paris 1639.

#### IV Editio Arabica

Richter-Bernburg Eine arabische version der pseudogalenischen Schrift de Theriaca ad Pisonem. Richter-Bernburg, Lutz. 1969.

#### V Annotationes

- Clem. Ald. with John Clement notes, Leiden.
- Caius Crat. with John Caius notes, Eton.

## Introduction

#### The Text

#### The Manuscripts

There are three branches of the manuscript tradition of the Greek text; only one of them (that descending from L = Laurentianus Plut. 74.5) gives the complete text.

#### 1 The L Branch

Laurentianus Plut. 74.5 (henceforth referred to as L) is a manuscript from the workshop of Johannikios in the hand of his Italian collaborator. The ms. is discussed by Nutton (Nutton 1999, 18 and n. 1) and sources quoted there. N.G. Wilson (1983 168) dates the ms. to c. 1150 and places its origin in Constantinople.

From L are descended Marcianus gr. 281 (M), Parisinus suppl. gr. 35 (N), and Yale Medical Historical Library ms. 37 s.xvi (Y). M is an apograph of L and part of a set of eight volumes prepared for cardinal Bessarion between 1468 and 1472: (Nutton 1999, 18 and n. 2 and sources quoted there), (Boudon-Millot 2007, CXCI). It is variously attributed to the scribe Giovanni Rhosos (Boudon-Millot 2007, CXCI) and to George Alexandrou (Nutton 1987 35 n. 31). N is a paper ms. of the late fifteenth or early sixteenth century (Nutton 1999, 19). Y is Yale Medical Historical Library Ms. 37, Call Number: R126 G4 M58 L67 1519+ Oversize; http:// hdl.handle.net/10079/bibid/4453519. Mss. of *Ther.Pis.* and *Ant.* dated c. 1500 are bound in the same volume as a printed text of Linacre's translation of *MM*, Linacre (1519); the ms. closely follows L.

Q (Parisinus 2164) is a s. xvi. ms. from the workshop of Zanetti of Venice written by Nicolas Pachys and Constantin Mesobotes (Boudon-Millot 2007, CCXIV). It consists of a complete text of the work (Q<sup>1</sup>) plus corrections in the margin and above the line in at least one other hand (Q<sup>2</sup>). It is closely related to L, sharing errors such as  $\tau \rho \alpha \chi \epsilon i \alpha \zeta$  for  $\tau \alpha \chi \epsilon i \alpha \zeta$  120. l. 2. It is however apparently not a direct descendant of L since it preserves the correct reading  $\mu \delta \sigma \nu \lambda \nu$  126. l. 3 where L followed by N and Y has  $\mu \circ \sigma \nu$  presumably reflecting a blot in L's exemplar. This is the printer's copy used for the Aldine edition of 1525 (Sicherl 1993, 15); N.G. Wilson (personal communication); all or virtually all of the corrections are incorporated into the Aldine text. Some of these are corrections of copying errors where Q<sup>1</sup> diverges from L; the rest appear to be conjectures and are often of high value. Q is not descended from N or Y since it has readings agreeing with L against N and Y: e.g.  $\alpha \vartheta \tau \omega \nu$  p. 72. l. 18. The ms. has been re-bound too tightly so that some marginalia in the inner margin are

invisible: e.g. where  $Q^2$  adds  $\&\varsigma$  p. 116 l. 26 it is clear that there is an addition, but what the addition is has to be deduced from the Aldine text.

A further peculiarity of L is that its scribe apparently regards the main body of *Ther.Pis.* as ending at p. 154. l. 17 where it has the heading: τέλος Γαληνοῦ προς Πισώνα τῆς θηριακῆς ἀντιδότου: - τοῦ αὐτοῦ περὶ ἀλῶν—in other words, treating the final section on theriac salts as a separate treatise, also by Galen. The heading is crossed out in the ms. and not reproduced in N and Y. In this L agrees with the Arabic text which ends at the same place; for further discussion see note ad loc.

Y appears to have been copied from, or to descend from a ms. copied from, L at a later time than the ms. from which N and Q<sup>1</sup> descend since Y has a space left by the copyist corresponding to a blot in L at  $\partial \pi \tau \eta \sigma \eta$  p. 132 l. 1 where N and Q<sup>1</sup> have  $\partial \pi \tau \eta \sigma \eta$ . Q<sup>1</sup> does not depend directly or solely on N because Q<sup>1</sup> has five words  $\sigma \upsilon \gamma \varkappa \epsilon i \mu \epsilon \upsilon \sigma \tau \alpha \chi \epsilon \omega \sigma \tau \sigma \omega \tau \pi \rho \sigma \sigma \pi i \pi \tau \delta \upsilon \tau \omega \nu \alpha i \sigma \theta \eta \sigma \epsilon \tau \alpha$ ; which N omits at p. 120 l. 20; they are however closely related enough to share an error at p. 122 l. 11 where Q<sup>1</sup> has  $\dot{\alpha} \tau \eta \nu \dot{\epsilon} \varsigma$  and N  $\dot{\alpha} \tau \eta \nu \dot{\gamma} \varsigma$ , both errors for  $\dot{\alpha} \tau \epsilon \upsilon$ .

#### 2 The P Branch

Parisinus Gr. 2195 (P) is a ms. on bombycianus paper dated by Diels to s. xiii. It contains short excerpts from the beginning of *Ther.Pis*. sandwiched between Aetius Amidenus I–VIII and IX–XIV. The Aetius Amidenus seems to be largely complete but with some discrepancies from the published editions—see the *Catalogue des manuscrits grecs de Tchécoslovaquie* (Olivier and Monegier du Sorbier 1983, 110–111). The excerpts from *Ther.Pis*. are brief and disjointed and consist of Kühn XIV 210.3–211.14, 215.5–216.8, 216.13–217.4, 219.9–16, 220.6–8, 11–14 [in this edition p. 66. l. 2–p. 66. l. 15; p. 70. l. 6–p. 70. l. 20; p. 72. l. 1–p. 72. l. 8; p. 74. l. 7–p. 74. l. 13; p. 74. l. 17–p. 74. l. 19; p. 76. l. 1–p. 76. l. 3]. From P are descended V = Vossianus VGF 58, Leiden; W = VI Fc 37 Roudnice Lobkowicz Library, Czech Republic and X = Vindob. Med. gr. 6 f. 152<sup>r–v</sup> (all of which have exactly the same excerpts as P).

The rationale behind the excerpting of the text in the PVWX branch is puzzling. Note in particular the alteration to the sense caused by excerpting at p. 74. l. 17 ff.:

καὶ γάρ ἐστιν [sc. ἡ θηριακή], ὡς οἶδας, ποικιλίαν ἔχουσα τοῖς μίγμασι καὶ πολυειδῆ τὴν χρῆσιν ἐν τοῖς ἔργοις. τεθαύμακα γοῦν ἐγὼ τὸν πρῶτον ποιησάμενον αὐτῆς τὴν σκευασίαν. καί μοι δοκεῖ μήτ' ἀλόγως, ἀλλ' ἀκριβεῖ τινι λογισμῷ, καὶ βεβασανισμένῃ πάνυ τῇ φροντίδι πεποιῆσθαι αὐτῆς τὴν σύνθεσιν. οὐ γὰρ ὥσπερ οἱ ἀπὸ τῆς ἐμπειρίας ἰατροὶ ἄνευ λόγου τοῦ κατὰ τὰς φύσεις ἕκαστον ἀτέχνως ἰατρεύοντες αἰσχρῶς τὰ μὲν ἐξ ὀνειράτων, τὰ δὲ καὶ παρ' αὐτῆς τῆς τύχης λαβεῖν φασιν εἰς τὴν τέχνην τὰ φάρμακα, οὕτω καὶ ἡμεῖς περὶ τὴν ἰατρικὴν σπουδάζομεν, ἀλλ' ὅσα μὲν ὁ λόγος αὐτὸς πρῶτος καὶ μόνος ἐξευρίσκειν δύναται, ταῦτα ἀκριβῶς παντὶ τῷ λογισμῷ ζητοῦντες φιλοπόνως εὑρίσκομεν, ὅσα δὲ εὑρεῖν ἀδυνατεῖ, ταῦτα διὰ τῶν αἰσθήσεων τῇ πείρᾳ κρίνομεν, πολλάκις μηδ' αὐτῇ μόνῃ καὶ μιậ τῇ αἰσθήσει πιστεύοντες αὐτῶν ποιεῖσθαι τὴν κρίσιν.

The text in italics is all that is retained by P; insofar as the text continues to make sense at all it reverses, by omitting où yàp immediately before the second passage printed in italics, the sense of the original by apparently approving the invention of the drug by unskillful ( $\dot{\alpha}\tau \epsilon \chi \nu \omega \varsigma$ ) Empiricist practices.

#### 3

0

Hauniensis ant fund reg 225 f 170. s. xvi [incomplete, ending at xαὶ οὕτω λοιπὸν ἀxριβῶς = Kühn XIV 221.11, p. 76. l. 13]: s xvi. Diels notes the ms. as "Expl. mutil. xαὶ οὕτω λοιπὸν ἀxριβῶς" but the suggestion of mutilation is incorrect; the ms. simply breaks off in mid-sentence half way down a clean and undamaged page.

#### Relationships between the Greek Manuscripts

In the Greek tradition therefore the complete treatise survives only in the L branch. Of the descendants of L, Y N and M seem to be mere apographs, more or less accurate but not offering new readings by way of conjecture or from other sources. The text of  $Q^1$  (that is the main body, excluding for the moment the marginal and interlineal amendments) belongs to the L branch, sharing many errors with L. It also contains further errors of its own. Consider for instance the following passage p. 148. l. 11 ff.:

ἐφάνη δὲ ἡμῖν ἡ ἀντίδοτος αὕτη καὶ ἐν ταῖς λοιμικαῖς καταστάσεσι μόνη τοῖς ἁλισκομένοις βοηθεῖν δυναμένη, μηδενὸς ἄλλου βοηθήματος τῷ μεγέθει τοῦ κακοῦ ἀντιστῆναι οὕτως πεφυκότος. ὥσπερ γάρ τι θηρίον καὶ αὐτὸς ὁ λοιμὸς οὐκ ὀλίγους τινὰς, ἀλλὰ καὶ πόλεις ὅλας ἐπινεμόμενος διαφθείρει κακῶς.

#### and the associated apparatus

λοιμικαῖς L λογικαῖς Q¹ 16 ὀλίγους τινὰς Q² ὀλίγας τινὰς L, Q¹ 16 πόλεις L πόδας Q¹ 16 ἐπινεμόμενος L ἐπινεμμένης Q¹

The mistakes in Q<sup>1</sup> are striking—ἐπινεμμένης is vox nihili and πόδας for πόλεις is remarkable. In addition the text of Q<sup>1</sup> has a large number of comparatively trivial alterations of word order, particle and so on which are more likely the

result of careless copying than evidence of a critical decision.  $Q^{2's}$  emendations are a different matter entirely: they are in the majority of cases improvements on  $Q^1$ . So in the lines set out above he corrects the copyist's three errors and restores the text to conform to L, and also corrects L's erroneous  $\partial\lambda i\gamma \alpha\varsigma$ . Where the text he has conforms to L in the first place and he emends it the emendation is usually an improvement. There is in my view no evidence that he has access either to a better text in the L branch to correct mistakes, or to another branch altogether: all his emendations could be arrived at by conjecture. The exception to this is in the recipe for theriac (Cap. XII p. 126. l. 25 ff. and n.) where arbitrary changes are made to lists of ingredients with no obvious justification; in the extreme case the position of a specific ingredient is simply moved within the list with no consequent change to the actual formulation of the drug. In the absence of another explanation I take it in these cases that he has access to an alternative text of the recipe.

The value of the P branch is severely limited by the fact that it covers only about five per cent of the text. It contains major errors such as the hyperache of the text of the text. It contains the per cent of the text of the text of the text. It contains the text of the text. It contains the text of the text. It contains the text of text of

O is of limited value in that it covers only about ten per cent of the text. It contains one valuable reading, p. 68. l. 2 <code>ispoupyia</code> for <code>ispoupyds</code> (see note *ad loc*. and introduction "Dating") and many gross errors: for example <code>dewv twv vmd</code> 'Pwmalwv for <code>vmdpmalwv</code> (giving the nonsensical meaning that the festival is held by, not on behalf of, the gods) (p. 68 l. 3); <code>xwpevovtas</code> (vox nihili) for <code>xopevovtas</code> (p. 68. l. 4).

#### The Relationship between O and P

That there is some relationship between O and P appears from the similarity noted above between the heading of P and the chapter headings in O. The two share a reading different from the L branch in the following cases:  $\pi\rho\delta\varsigma$  so  $\pi\delta\tau$  p. 66 l. 4 kän p. 70 l. 20, kai p. 72 l. 1, tè basile disconta p. 72 l. 3, dià toûto(u) trsp. p. 74 l. 13.

#### Texts Available to the Printer

As noted above Q is the printer's copy and the editio princeps, the Aldine, largely reproduces its contents. There are however a number of instances where the Aldine has a reading which coincides with either O or P against Q<sup>1</sup>. In the case of P, these are: 'Andromy where Q<sup>1</sup> has and point Maynou p. 66 l. 10, toig logic, ton it' autoig logic lo

l. 14, γένοιτο where Q<sup>1</sup> has γένηται p. 72 l. 18, ταῦτα where Q<sup>1</sup> has πάντα p. 74 l. 14. It therefore appears that the printer has access to an alternative manuscript or manuscripts related to O and P. In addition, ἀτόπως p. 68 l. 14 omitted by Q<sup>1</sup> but otherwise present in the L branch is present in the Aldine edition: this could have been supplied by any of the three branches. Cf. also p. 118 l. 3 where Q<sup>1</sup> has ἄλλων, clearly an error for ἀνθρώπων in L: the Aldine has the correct ἀνθρώπων despite the fact that there is no correction by Q<sup>2</sup>.

#### The Arabic Text

The Arabic text of Ther.Pis. survives solely in ms. Aya Sofya 3590. This was edited by Richter-Bernburg (1969) as a PhD thesis at Göttingen university. According to the Risala of Hunayn ibn Ishaq (809-873) the text was translated into Syriac by Ayyub ar-Ruhawi and into Arabic by Yahya bin al-Bitriq (Richter-Bernburg 1969 16, 19). Richter-Bernburg shows however on stylistic grounds that the version in Aya Sofya 3590 is not the al-Bitriq translation but must be regarded as anonymous: (Richter-Bernburg 1969 16, 19). Richter-Bernburg further shows (18, 19) that the translation is not from the Greek directly, but from a Syriac intermediary. The translation differs from the Greek text in that the Andromachus poem is moved to the end as a kind of appendix and that the final two chapters of the Greek text dealing with theriac salts are entirely omitted so that the treatise ends at p. 154. l. 17. The quality of the translation is variable: it has a tendency to simplify or omit sentences to the extent that it is often of little value in deciding between two variants in the Greek. It is however valuable in that it undoubtedly sometimes solely transmits and sometimes confirms good readings. For sole transmission cf. p. 126. l. 12 and n. (confirming γιζί where the Greek sources all have  $\zeta_{\Gamma\gamma\gamma}(\beta\epsilon\rho)$  p. 102. l. 18 and n. (supplying the link between being bitten by a διψάς, and bursting—the link being excessive water-drinking to assuage thirst). For confirmation of good readings cf. p. 66. l. 10 (authorship of book from which Piso is reading in the opening scene). In this latter instance it should be noted that Richter-Bernburg according to Nutton (1995 34) "merely took over the opinion [sc. that Galen is not the author of *Ther.Pis.*] of a friend, Friedrich Holtiegel, who was editing the Greek text for his Göttingen dissertation, a dissertation, as far as I am aware, never completed or published". Because of or perhaps in spite of this friendship, in at least one crucial passage Richter-Bernburg more or less tacitly emends his text to agree with what is in the Greek text printed by Kühn. (See p. 66. l. 10 ff. and n. and cf. p. 130. l. 18 ff. and n.) In the with the following note in رجل سمّى أندرؤماخس Arabic text Richter-Bernburg has the apparatus: "211.7 Ἀνδρομάχου أندرؤماخس: معنس (211.7 here means Kühn XIV 211.7). Richter-Bernburg's endnote to the German translation devotes a whole page to other appearances of Andromachus the elder in the Arabic literature

but remarkably is altogether silent on the existence of the variant reading in the Arabic.

#### *The Latin Translations* Niccolò da Reggio

The Works (*Omnia Opera*) of Galen edited by Diomedes Bonardus and published in two volumes by Pinzi in 1490 contains (vol. 1 folio 107 verso–110 recto) Latin translations of two works on theriac. The first of these called "de tyriaca ad Pamphilum" is a translation of *On theriac to Pamphilianus* agreeing closely with the Greek text as printed by Kühn (except that the last three sentences are omitted). The second (108 verso–110 recto) is called "de comoditatibus tyriace"; it is in fact a translation of part of *Ther.Pis*. Kühn XIV 259.1–287.10 = p. 126. l. 19–p. 154. l. 17 omitting Kühn 261.2–262.15 = p. 128. l. 19–p. 130. l. 16 and abbreviating elsewhere. (Durling (1961) 472–473). The introductory note (Prohemium translatoris (107 verso)) reads as follows:

"Prooemium translatoris

Viro circumspecto et physicali ac medicinali scientia redunito magistro Mar. de mantua Nicolaus de regio di Calabria medicus semp. bonum agerum et se ad grata paratum. Quia petistis a me ut libellum Gal.' de tiriaca quo hucusquam caret lingua latina vobis transferrem de greco idiomate. Tum ut mentem ipsius Galie. de ipsa tiriaca et eius dationibus et comoditatibus haberetis tum etiam ut per nos aliquis liber. Galieni de magis utilibus nondum hucusquam habitis adiceretur lingue latine. Ego vobis in hoc complacere volens tanquam amico intimo et tanquam viro habenti affectum et animum erga bona. Quia Galienus ipse duos libellos fecit de tiriaca unum videlicet ad Pamphilum principem asie et libie. Et alium ad Cesarem virum edoctum et suum amicum. Ipsos ambos libellos nostro nomine transtuli et vobis mitto ad praesens ut nihil vobis de mente ipsius Galeni de hac materia desit. Donum igitur amici grato animo ut pote vir providus et edoctus accipiendo. Non parvitatem sed utilitatem provenientem exinde prout decet consideretis."

This note ascribes these two translations to Niccolò of Reggio and states that "Galienus ipse duos libellos fecit de tiriace unum videlicet ad pamphilum principem asie et libie et alium ad cesarem virum edoctum et suum amicum". The attribution of the rank of "princeps Asiae et Libyae" to Pamphil[ian]us is perhaps derived from the status implied for him in the text itself. (Kühn XIV 296.4–15). (The Latin text here departs slightly from the Greek). The second piece beginning on folio 108 v is headed "Incipit liber galieni ad cesarem de comoditatibus tyriace" and has the explicit "Explicit libellus de comoditatibus tyriace: Galieni translatus a magistro nicolao de regio de calabria et capitulatus etiam ab ipso" (f 110 v.). The statement that *Ther.Pis.* is dedicated to a "virum edoctum et suum [sc. Galen's] amicum" agrees with the first chapter of *Ther.Pis.* but cannot be deduced from the excerpts actually translated, suggesting a knowledge (whether first-hand or not) of the contents of the whole treatise and not just of the passage translated.

The text preserves good readings e.g.  $\mu\alpha\sigma\tau\chi\eta\varsigma$  (masticis) p. 130. l. 18 (agreeing with the Arabic against the impossible  $\dot{\alpha}\sigma\alpha\varsigma$  of the Greek sources, although I have preferred to correct  $\dot{\alpha}\sigma\alpha\varsigma$  to  $\kappa\alpha\sigma\sigma\alpha\varsigma$ ), freneticis at p. 140. l. 1 agreeing with the Arabic and confirming Chartier's correction from  $\kappa\epsilon\rho\rho\alpha\tau\omega$  in the Greek.

#### **Other Latin Versions**

Rota (1565) makes it clear that in translating the treatise into Latin he is working from a combination of a printed text and what he calls the vetustissimus codex (which I take to be L or perhaps M)—see p. 66. l. 10 and note. None of his successors shows any sign of access to any ms. or other source unknown to us. I have occasionally referred to these translations as possible sources of useful interpretations of the Greek. Coturri (1959) is a translation into Italian of Rota's text (Coturri (1959) 15).

#### The Andromachus Poem

The poem appears both in *Ther.pis*. and in *On Antidotes*. I have printed the text of L except as noted in the apparatus and provided a brief commentary: for a more detailed commentary see Heitsch (1963).

#### **The Printed Editions**

Cratander, Chartier and Kühn reproduce the Aldine text with trivial additional errors (e.g. προσάγειν for προσθίγειν p. 78 l. 16, Κλεωπάτραν for Κλεοπάτραν p. 104 l. 2)—errors introduced by Cratander but also present in Chartier, which implies that Chartier works from that text rather than the Aldine; τοῦ omitted by Chartier p. 76 l. 1. Emendations occasionally occur in the printed editions e.g. Cratander's θορνυμένου for θ' ὀρνυμένου p. 108 l. 5 (quotation from Nicander, where it appears Cratander is consulting a separate text), Chartier's ἔχοντα for ἔχοντι p. 78 l. 23, μάθωμεν for μάθομεν p. 80 l. 9; τὸ for τὸν p. 86 l. 15; αὐτῆς for αὐτῆς p. 104 l. 8; Kühn Μαγνῆτιν for μαγνίτην p. 80 l. 4, γίνηται for γίγνεται p. 120 l. 6, συμμεταβάλληται for συμμεταβάλλεται p. 120 l. 7.

#### Note on Editorial Method

The text reported is that of L unless otherwise indicated. The apparatus states variants in the other mss. In addition I have sometimes given readings from the Arabic and Latin texts which tend to confirm the reading I have adopted (from L or elsewhere). In the commentary my intention, in addition to explaining what seems to me to need explanation, has been to point out respects in which the treatise either agrees with, or differs from, what is found elsewhere in Galen's works.

#### The Treatise

The treatise consists of a monograph on the antidote known as γαλήνη or θηριαχή also referred to elsewhere by Galen as τὸ διὰ τῶν ἐχιδνῶν φάρμαχον (e.g. *MM* V: X 372.17–18). Like *On Antidotes* it incorporates the 170-line poem in elegiac couplets by Andromachus the Elder to Nero praising, and giving the recipe for, theriac.

#### Structure and Content

The treatise is concerned with the history, manufacture and properties of the complex drug theriac or Galene invented (according to the treatise itself, chapter V) by Andromachus, personal physician to Nero, who took a recipe deriving from Mithridates VI of Pontus and added the flesh of vipers to it. The first sentence is programmatic; the treatise is to be exclusively about theriac, and it is to be exhaustive: the author has "accurately investigated everything" about theriac. It purports to be written in response to the express wish of the dedicatee Piso to learn more about the drug. The motivation on Piso's part is first stated as being that he has read a treatise about it in the course of his general amateur medical studies (p. 66 l. 2 ff.); later in the first chapter we learn that he has witnessed its miraculous effects when applied to his favourite son (p. 68 l. 23 ff) after an injury sustained while riding a horse. This incident relating to Piso's son is referred to again at the end of Chapter II (p. 74 l. 7 ff) where we learn for the first time that the current emperors were instrumental in deciding to use theriac in treating the son. It is implied that this incident has inspired Piso to obtain the book which he is reading in Chapter I.

The treatise therefore expressly places itself in a tradition of monographs on theriac, referring to the treatise on theriac by Magnus of Crete (p. 66 l. 10 ff and n.) in Chapter I, and reproducing the Andromachus poem giving the recipe and uses of the drug in Chapters VI and VII. In Chapter XII references are made to theriac recipes by Xenocrates and Damocrates as well as Magnus and Andromachus. Chapter XII tells us that Damocrates wrote a book on antidotes, and we have his verse theriac recipe at *Ant*. I: XIV 90.2–99.13. Book I of Galen *Ant*. belongs to the tradition of monographs on theriac, with which it is exclusively concerned, and so does the pseudo-Galenic *Theriac to Pamphilianus*. The Andromachus poem confines itself to two principal topics, the uses of and recipe for theriac. The end of Chapter I (p. 68 l. 23 ff. and n.) states that Piso wants to know the power or effect ( $\delta \psi \alpha \mu w$ ), the appropriate occasion for use, and the dosage of theriac. This more or less reflects the content of the Andromachus poem and of chapters XII–XVII, and is the standard way of specifying a medicine in Galen generally. What distinguishes the treatise from similar pharmacological works is the additional rhetorical, historical and theoretical content.

The division of the treatise into 19 chapters is not an original feature of the work: see p. 62 ff. and Appendix 27. The chapter divisions do however provide a useful framework for a synopsis of the contents of the treatise, as follows:

- 1. Introductory. Explanation of Piso's interest in theriac.
- 2. Piso is right to be interested because of the powers of theriac. Rulers test on criminals, we test on cocks. Marcus Aurelius used it, our present emperors provide it to others and are great doctors who cured Piso's son.
- 3. Pharmacological theory—use of experience and reason to assess simple drugs; attack on Empiricists; attack on Asclepiades.
- 4. Pharmacological theory cont. Disparate properties in simples (e.g. different parts of plant have different effects; same drug has different effects on different parts of body/different animals).
- 5. Theriac invented by Andromachus applying principles discussed in previous two chapters.
- 6, 7. Andromachus poem gives uses of, and recipe for, theriac.
- 8. Why we use vipers, not other snakes; Cleopatra's death.
- Pharmacological theory. Why we cut off heads; examples of animal parts, and whole animals, as drugs.
- 10. Pharmacological theory—antithetical properties (cases where what causes injury also cures it) and blended properties (ingredients have one effect unmixed, the opposite effect in mixtures); attack on Empiricists.
- 11. Attack on Asclepiades' atomism.
- 12–14. Preparation of theriac.
- 15. Diseases against which theriac is effective.

- 16. Diseases against which theriac is effective: rabies, plague (Hippocrates anecdote); use as prophylactic; Mithridates.
- 17. Dosage as prophylactic.
- 18. Theriac salts; pharmacological theory.
- 19. Theriac salts; preparation. Conclusion.

The natural comparison is with book 1 of *On Antidotes* which is similarly concerned exclusively with theriac and gives its history and detailed instructions for its preparation, all based around the Andromachus poem. *Ther.Pis.* differs from *On Antidotes* in the following ways:

- 1. Rhetorical framework. On Antidotes begins with a definition of "antidote" and an account of the history of theriac, with no scene-setting preamble. The first two chapters of Ther.Pis. consist of a rhetorical mise en scène apparently designed to flatter the addressee Piso and the current Emperors. No other work in the authentic Galenic corpus devotes so much space to a rhetorical introduction. Ther. Pamph. is the closest parallel with its introductory praise of Pamphilianus which may in fact be an imitation of Ther.Pis. The rhetorical framework introduces the Roman emperors into the treatise. There is a thematic link between theriac and those in a position of power which permeates the treatise. Rulers can try the effect of theriac on condemned criminals (Chapter II). The underlying drug, mithridatium, of which theriac is an improvement is an invention of Mithridates of Pontus. The Andromachus poem is addressed to the emperor Nero. The treatise contains historical anecdotes about Hannibal (see p. 86 l. 12 ff. and n.), Cleopatra (see p. 104 l. 2 ff. and n.), Hippocrates (see p. 148 l. 14 ff. and n.), Mithridates (see p. 150 l. 21 ff. and n.). These are atypical and a reason for thinking the work is not by Galen.
- 2. Theoretical concerns—pharmacology. The Andromachus poem confines itself to the uses of and recipe for the drug. The author of *Ther.Pis.* is deeply concerned with theoretical justification for the complexity of the formula for theriac and with what I have above called disparate and antithetical qualities in drugs. This latter concern is obviously inspired by the central paradox of theriac, explicitly stated in Chapter X, that snakes are used to guard against, and to cure, the effect of snakebites. Apart from the rhetorical and anecdotal matter, the first eleven chapters are largely concerned with problems of theoretical pharmacology of this kind. We should note that some of these concerns closely mirror passages elsewhere in the Galenic corpus both in general, in the specific examples chosen and in the wording in which those examples are described. These parallels are identified in the

notes; as an example see p. 82 l. 12 ff. and n. on the effect of hemlock on starlings and humans respectively. The author is also interested in the testing of drugs, as a demonstration their proper effect (Chapter III) and to identify adulteration (Chapter III) and deterioration (Chapter XIV) to an extent not found elsewhere in Galen.

3. Theoretical concerns—philosophy. The sustained attacks on Empiricism and on Asclepiades in Chapter III and X–XI and the discussion of the diagnosis of rabies in Chapter XVI also mirror closely both in overall argument and in detailed wording passages in the authentic Galenic corpus. If the author of *Ther.Pis.* is not Galen he is undoubtedly a Galenist with a detailed knowledge of parts of the corpus including not only the pharmacological works but also *El. Ex Hipp.* and *Nat. Fac.* (see p. 78 l. 10 ff. and n.) and *Sect. Int.* (see p. 146 l. 9 ff. and n.)

#### Date

The treatise contains evidence as to the date of its composition. If it is not by Galen and is a deliberate imposture (as to which see below under "authentic-ity") this evidence may be intentionally misleading.

Nutton (1995) 33 states that "As Anton von Premerstein proved almost a century ago, the account of the accident to the son of Piso during a performance of the ceremonial Lusus Troiae, XIV 212 K, can refer only to the Secular Games of 204"; the reference is to von Premerstein (1898). In fact von Premerstein does not explicitly mention the Secular Games. He refers with approval to Friedländer in Marquardt (1881) iii. 505 as establishing that the reference is to the Lusus Troiae. Friedlander himself in the passage referred to states in a footnote in his chapter on "Die circensischen Spiele" that the reference is to the Lusus Troiae: "Goebel p 3 hat sämmtliche Stellen verzeichnet, in denen der ludus Troiae überhaupt erwähnt, ausser der folgenden, die wol nur hierauf bezogen warden kann". Nothing should necessarily be read into the chapter heading about Friedlander's opinion on the context in which the incident in Ther.Pis. occurred: this is simply a good place to rectify the omission in Goebel's catalogue. Friedlander does however state in a slightly earlier passage, and as a speculation only, that the (annual) ludi Romani may have included a performance of the Lusus Troiae (Friedländer in Marquardt (1881) iii. 478). I shall come back to the reasons for thinking that there must have been at least one annual recurring performance of the Lusus Troiae in around 200. The ludi Romani with Piso senior (that is, the dedicatee of the treatise rather than his son) as curule aedile would be an attractive explanation of the expression θρησκείαν, την ύπερ Ῥωμαίων θεών ἀναγκαίως ἀγομένην τότε (p. 68. l. 2) if we accept Rota's conjecture of  $\hat{\eta}\varsigma$  for  $\hat{\eta}\nu$  (which I do not—see note *ad loc*.)

The fact that the passage refers to the Lusus Troiae was incidentally noted long before 1881: the comparatively little known Latin translation by Iohannes Iuvenis (= Johann Neander) published in Antwerp in 1574 states in the notes to chapter 1 that the accident to Piso's son happened "cum in Ludis Circensibus, ex modo Troiam luderet": Iuvenis (1574) 7.

In any event von Premerstein does not on my reading of him take the further step required by the argument of showing, or indeed claiming, that this performance of the Lusus must have taken place at the Secular Games. On the contrary he concludes that the performance of the Lusus referred to by Galen is an annual event taking place at the lustrum of 19 March: "Als mit dem Aussterben des julisch-claudischen Hauses die Troia als Schaustück bei den Circusspielen in Abnahe kam, blieb sie und damit auch die sacrale Function der tribuni celerum, wie das angeblich galenische Zeugniss aus dem Ende des 2. Jahrhunderts und die tres equitum turmae des Ausonius (um 368) zeigen, bis in das 4. Jahrhundert hinein als ritueller Bestandtheil der jährlich am 19. März wiederkehrenden Lustration erhalten, wahrscheinlich ebensolange wie das Priesterthum der Salier, welches noch in einer stadtrömischen Inschrift vom Jahre 382 (C. VI, 2158) vorkommt.": von Premerstein (1898) 266.

So von Premerstein does not in my view advance an argument to the effect that the reference in *Ther.Pis.* is a reference to the Secular Games. Does Nutton's theory that there is a reference to those games have any merit in the absence of von Premerstein's supposed support for it? This question depends on two further questions: is the activity referred to in the treatise the Lusus Troiae; and if so can it be said that on the balance of probabilities a reference to the Lusus Troiae in or around the year 200 is likely to be a reference to the performance of the Lusus at the Secular Games?

Before proceeding further we should consider the state of the text. von Premerstein and subsequent discussions of the passage have relied on the Kühn text (which coincides with the Aldine). von Premerstein makes or reports two conjectures, both of which I accept: he prints angle brackets in the fourth line thus:  $\langle \Hawstarep \rangle \tauolc$  (mpois, and he reports Friedlander as proposing lepoupyla for lepoupyds, a reading also found in O. This latter reading is of profound importance to the discussion of von Premerstein and subsequent scholars, in particular Ross Taylor (1924) and Fuchs (1990) who focus on the question, What kind of priesthood did the young Piso hold? e.g. Ross Taylor (1924) 164: "The very probable suggestion has been made by von Premerstein that the semi-priestly office mentioned,  $\delta\eta\mu\sigma\tau\epsilon\lambda\eta\varsigma\mu\sigma\tau\eta\rho\omega\nu$  lepoupyds is identical with the tribunus celerum." If Friedlander and O are correct that question no longer arises. Even if the conjecture lepoupyla for lepoupyds is wrong there is no reason to suppose that lepoupyds is right—L (followed by N and Y) has lepoupyŵs. lepoupyŵs, appears for the first time in the main body of Q and is therefore almost certainly a mere scribal error. ἱερουργῶς, a hapax if correct, is difficult to make sense of and would appear to require that we treat δημοτελής as a noun referring to Piso's son. The meaning of δημοτελής is "at the public expense": it usually qualifies ἑορτή, ἱερά or πανάγυρις (see note *ad loc*. and LSJ *s.v.*) and there is no evidence for its use as a noun in any sense, or as an adjective qualifying a noun denoting a human being.

The emendation ἰερουργία for ἱερουργός removes the difficulty which is the focus of Ross Taylor (1924) and Fuchs (1990)—the difficulty of finding a priestly role for the young Piso whose age is such that he is ἀπαλοῦ ... πάνυ and is not yet an ἀνὴρ although he acts as if he were (καὶ ὁ μὲν παῖς, ὥσπερ τἰς ἀνὴρ ἤδη, τλημόνως ἀπάντων ἀνεχόμενος p. 68. l. 7). To von Premerstein (1898) 261 the priesthood is that of tribunus celerum; he rejects an attempt by Otto Gilbert to identify the tribuni celerum with the seviri of the six turmae of Roman cavalry (1898) 262 on the grounds that these have nothing to do with "der nur von vornehmen Knaben gerittenen Troia". Ross Taylor (1924) adopts a number of von Premerstein's assumptions, in particular the assumption that the reference in *Ther.Pis.* is to an annually recurring festival. The basis of this assumption is not expressed. Both Ross Taylor and von Premerstein refer to Andromache's lament for Astyanax at Seneca Troades 777–779:

nec stato lustri die sollemne referens Troici Lusum sacrum puer citatas nobilis turmas ages

and both infer that this reference must be to an annual event and that that event is the armilustrium of 19 March. Ross Taylor explicitly states these assumptions as follows (1924) 164: "The lustrum referred to as a time at which the Troia was regularly exhibited must be the spring or autumn armilustrium (March 19th or October 19th), and, as we have seen from the Fasti Praenestini, equestrian exercises probably identical with the Lusus Troiae were performed on March 19th." The evidence of Seneca must of course be treated with caution, given the nature of his relationship with Nero. For instance this passage, which seems on the face of it to be evidence for the Lusus being an annual rite of passage, could in theory be propaganda in support of an hypothetical attempt by Nero to make it a rite of passage, given Nero's passion for the Lusus (Suet. *Nero* 7) and Augustus' possible attempt to do the same thing (Suet. *Aug.* 43). But this is speculation without evidence to support it; the more natural conclusion to draw from the passage is that there was indeed an annual performance of the Troia. The attempt by Fuchs (1990) 59 to make lustrum here refer to the 100

or 110 year period of the Secular Games is impossibly contrived: Andromache is lamenting that Astyanax will not grow up doing the things his father and grandfather did. Fuchs' argument implies generation gaps of precisely 100 or 110 years between Priam, Hector and Astyanax.

There is no direct evidence that the treatise must be referring to an annually recurring event even if it describes the performance of the Troia. We have good evidence for the Troia being performed at one-off celebrations such as Caesar's triumph of 45BC, Augustus' dedication of the theatre of Marcellus (Dio 54.26.1) and temple of Mars (Dio 55.10.6). The description of the game in *Aeneid* 5.545–603 is set in the context of the funeral games of Anchises. Herodian's description of the funeral and apotheosis of Septimius Severus in 211 describes mounted manoeuvres which sound strikingly similar to what is described by Galen save that there is no suggestion that the participants are youths:

ίππασία περὶ τὸ κατασκεύασμα ἐκεῖνο γίνεται, πᾶν τε τὸ ἱππικὸν τάγμα περιθεῖ κύκλῳ μετά τινος εὐταξίας καὶ ἀνακυκλώσεως πυρριχίῳ δρόμῳ καὶ ῥυθμῷ. 4.2.9

and so does Dio's description of the funeral arranged by Septimius for Pertinax:

οί δὲ ἄρχοντες καὶ ἡ ἱππὰς τὸ τέλος προσφόρως σφίσιν ἐσκευασμένοι, οἵ τε ἱππεῖς οἱ στρατιῶται καὶ οἱ πεζοὶ περὶ τὴν πυρὰν πολιτικάς τε ἅμα καὶ ποιητικὰς διεξόδους διελίττοντες διεξῆλθον DIO 74.5.5

Both passages should be read in light of Dio 59.11 where we are told that the Troia was played around the tomb of Caligula's sister Drusilla:

τῆ δὲ Δρουσίλλῃ συνώκει μὲν Μᾶρκος Λέπιδος, παιδικά τε ἄμα αὐτοῦ καὶ ἐραστὴς ὤν, συνῆν δὲ καὶ ὁ Γάιος καὶ αὐτὴν ἀποθανοῦσαν τότε ἐπήνεσε μὲν ὁ ἀνήρ, δημοσίας δὲ ταφῆς ὁ ἀδελφὸς ἠξίωσε καὶ οι τε δορυφόροι μετὰ τοῦ ἀρχοντός σφων καὶ χωρὶς οἱ ἱππῆς τὸ τέλος ..., οι τε εὐγενεῖς παιδες τὴν Τροίαν περὶ τὸν τάφον αὐτῆς περιίππευσαν.

We have secure epigraphic evidence of the performance of the Troia at the Secular Games of 204: ut in Palat[i]o carm[e]n conte[x]is manibu[s pue]ri puellaeque dix[erunt ch]orosque hab(u)erunt quos perfe[cto] sacrificio Augg(usti) hon[oraverunt] / [3]n VIIII lances arge[nteas 3] reliquis [c]um Troiam lusissent item puell[i]s 3 v]ela s[e]rica et pra[emium] sollemnem acc[eptis dati]sque omnibus se receper[unt i]nde Severus et Antoni[nus Augg(usti) 3] / [3 cum] pr(aefecto) p[r(aetorio) e]t o[3 process]erun[t] ad ludos saeculares consummando[s] in thea[trum 3] (CIL 06 32326).

The assumption on the part of von Premerstein and Ross Taylor that the treatise refers to an annual occurrence is therefore open to question. It is in fact probably justified on purely statistical grounds, if we assume that there is at least one annually recurring festival at which the Troia is performed, since the special occasions of the kind we can identify at which the Troia is performed triumphs, temple dedications and the Secular Games—are inherently quite rare. von Premerstein is confident of having identified one such annual festival, the Quinquatrus on 19 March, and confident also that this is performed annually until the 4th century (Fuchs 1990, 59). Note that the Galenic reference is one of three pieces of evidence on which von Premerstein relies for the survival of the festival so the argument is for our purposes partly (but only partly) circular.

There is probably another annual festival at which the Troia was performed, namely the Ludi Romani. Ullman (1914) 14 states on the authority of Mommsen that "It has been seen that the mounted boys at the head of the procession [sc. at the beginning of the Ludi Romani] were those who took part in the Ludus Troiae in the Circus." The note of Mommsen which he cites however (Mommsen 1908, 294 and note) speaks of "The horsemanship-competition of patrician youths which belonged to the Circensian games, the so-called Troia" but without giving authority for this proposition. Similarly Rasch (1882, 11) states that "Troiam, cum esset pars ludorum circensium, plerumque in circo luserunt, cui nomen est Maximo" (Suet. *Caes.* 39, *Claud.* 21) but without authority for the general proposition. He recognises the paucity of our evidence in this passage (Rasch 1882, 12):

Quibus diebus festis quibusque sollemnibus extra ordinem celebratis praeterea Troia exhibita sit traditum non est. Aliquamdiu autem vix ullum fuisse sollemne paullo maioris momenti, quin inter alios ludos Troia ederetur, colligi potest ex iis, quae Suetonius dicit de Augusto: 'Sed et Troiae lusum edidit frequentissime' et de Nerone: 'Tener adhuc necdum matura pueritia circensibus ludis Troiam constantissime favorabiliterque lusit'.

However, the paucity of evidence may be explicable on the basis that the Julio-Claudians had an inordinate passion for the Lusus Troiae and to have called for performances at the drop of a hat and it is these extra-curricular performances which the historians regard as noteworthy. We can add Suetonius *Aug.* 43,

*Tiberius* 6, *Caligula* 18, *Nero* 7 to Rasch's reference to *Caesar* 39 and *Claudius* 21. The absence of evidence for regular annual performances is perhaps explicable on this basis. The extra-curricular performances are indeed indirect evidence of regular performances since the Lusus consisting of fast close-quarters performances by armed riders is plainly a skilful and dangerous business calling for trained riders and trained horses (the danger can be inferred both  $i \times \tau 00$   $i k \delta \tau 00$  and from the accidents to Gaius Nonius Asprenas and Aesernenus Asinius Pollio in Suet. *Aug.* 43). Given the skill and training involved it may be a reasonable assumption that the Julio-Claudians were able to arrange ad hoc performances of the Lusus because there was a permanent supply of trained participants, and that that supply was available because the Lusus was performed annually.

The passage from Suetonius *Aug.* 43 deserve further consideration. Suetonius writes that

sed et Troiae lusum edidit frequentissime maiorum minorumque puerorum, prisci decorique moris existimans clarae stirpis indolem sic notescere. in hoc ludicro Nonium Asprenatem lapsu debilitatum aureo torque donauit passusque est ipsum posterosque Torquati ferre cognomen. mox finem fecit talia edendi Asinio Pollione oratore grauiter inuidioseque in curia questo Aesernini nepotis sui casum, qui et ipse crus fregerat.

Augustus gave very frequent performances of the Troy Game for both older and younger boys, thinking it was part of an ancestral and estimable tradition that the youths born of famous stock should become known in this way. When Nonius Asprenas had a fall in this game he gave him a gold torque and the right to bear the cognomen Torquatus. But soon he stopped giving such performances when the orator Asinius Pollio started complaining long and grievously in the senate about his grandson Aeserninus who also broke a leg.

This is problematic: the implication is that Augustus introduced and then discontinued the Troy Game rather than that he introduced additional performances over and above a putative annual performance or performances as part of an existing festival.

A third candidate is the Ludi Apollinares referred to by Rasch (1882) 11 relying on Dio Cassius 48.20:

διά τε οὖν ταῦτα καὶ διὰ τὸ τοὺς φεύγοντας αὐτὸν ὑποδέχεσθαι τήν τε τοῦ Ἀντωνίου φιλίαν πράττειν καὶ τῆς Ἰταλίας πολλὰ πορθεῖν, καταλλαγῆναί οἱ ὁ Καῖσαρ ἐπεθύμησε· διαμαρτών δὲ τούτου ἐκείνῳ μὲν Μάρκον Οὐιψάνιον Άγρίππαν πολεμήσαι ἐκέλευσεν, αὐτὸς δὲ ἐς Γαλατίαν ἀπήρε. μαθὼν οὖν τοῦτο ὁ Σέξτος ἐτήρησε τὸν Ἀγρίππαν περὶ τὰ Ἀπολλώνια ἔχοντα· ἐστρατήγει γάρ, καὶ ἄλλα τε πολλά, ἅτε καὶ πάνυ φίλος ὢν τῷ Καίσαρι, ἐλαμπρύνατο, καὶ τὴν ἱπποδρομίαν ἐπὶ δύο ἡμέρας ἐποίησε, τῆ τε Τροία καλουμένῃ διὰ τῶν εὐγενῶν παίδων ἐγαυρώθη.

For these reasons, and because Sextus was harbouring the exiles, cultivating the friendship of Antony, and plundering a great portion of Italy, Caesar desired to become reconciled with him; but when he failed of that, he ordered Marcus Vipsanius Agrippa to wage war against him, and himself set out for Gaul. However, when Sextus learned of this, he waited until Agrippa was busy with the Ludi Apollinares; for he was praetor at the time, and was not only giving himself airs in various other ways on the strength of his being an intimate friend of Caesar, but also in particular he gave two-days' celebration of the Circensian games and prided himself upon his production of the game called "Troy," which was performed by the boys of the nobility.

LOEB edn. tr. CARY

This is ambiguous as to whether the performance of the Troia is part of the games and Agrippa merely prides himself on the production of it or whether it is an innovation. Cary's translation of the imposed popular as "the Circensian games" is questionable: the meaning is generally just "horse race" or "chariot race": LSJ s.v., where it is also noted that Plutarch uses the word to describe the Lusus Troiae (*Cato Min.* 3.1.1–2 ἐπεὶ Σύλλας τὴν παιδικὴν καὶ ἱερὰν ἱπποδρομίαν ἡν καλοῦσι Τροίαν ἐπὶ θἑα διδάσκων). There is however no doubt that von Premerstein and Ross Taylor make the assumption that the reference is to an annually recurring event, and that they cannot be produced as evidence to the effect that the treatise refers to the rather less frequently recurring Secular Games.

Fuchs (1990) is the only full study of the Lusus Troiae and is specifically cited by Nutton (1997, 138 n. 12) as confirming von Premerstein's putative view that the reference in Galen must be to the Secular Games. Unlike von Premerstein she does refer expressly to the Secular Games. Her conclusions are that it is highly likely that Galen does indeed refer to the Lusus Troiae ("Mit grosser Wahrscheinlichkeit kann noch eine Stelle aus einer Galenische Schrift auf die Troia bezogen warden" (Fuchs (1990) 45)) but that the possibility of the reference being to the Secular Games of 204 must remain "a guess"—ein vermutung (Fuchs (1990) 63).

To summarise: there is ample ancient authority for performances of the Lusus Troiae in the time of Sulla and under the Julio-Claudians. After that period it vanished from the historical record entirely. The situation is well stated by Rasch when he writes:

His expositis satis apparet, aetate imperatorum e gente Iulia saepissime summoque studio editum esse ludum Troiae neque minus, diligentissime scriptores memorasse, quantam et curam et diligentiam singuli imperatores huic ludo impertiverint. Quae cura ita sint, nonne mirum videtur, quod iidem scriptores, ubi ad vitas ceterorum imperatorum enarrandas transierunt. quamquam copiosissimi saepe sunt in enarrandis circensibus, Troiam ne verbo quidem commemorant, quasi cum decessu Iuliorum etiam Troiae ludus evanuerit?

I do however believe the date of *Ther.Pis.* to be after 203 and before 211 for reasons which are not dependent on the identification of the games in which Piso's son injures himself with the Secular Games of 204—an identification which I find attractive but unproven.

The author praises "our present glorious emperors", τών νῦν μεγίστων αὐτοκρατόρων, in chapter 2 of *Ther.Pis.* (p. 72. l. 9). The reign of Marcus Aurelius is in the past (p. 72 l. 8) and this can only refer to Severus and Caracalla. The ten year old Caracalla was made co-emperor in January 198 at Ctesiphon on the Tigris, and both emperors were then in the East and in Africa until a "flying visit" to Rome (Birley (1999) 216) of around 30 days in spring 202 and then in Africa again until returning to Rome in about June 203. The author's words about their generosity presuppose their having access to a large and varied stock of drugs and to the numerous grateful recipients, the passage of enough time for them to establish a track record of generosity, enough time for the cures of Antipater, Arria and Piso's son to take place, and the author being present to witness all this. It is not strictly impossible that Arria and Antipater might have accompanied the emperors abroad—Septimius' wife did (Birley (1999) 201, 217) nor that the author plus a travelling medicine chest were also there when they took ill, but it is unlikely. Note in particular Galen's distaste (if the author is Galen) for campaigning outside Italy evidenced by his evasion of foreign service in 169 on the basis of a dream sent to him by Asclepius (Lib. Prop. XIX 18.15-19.1 (and see Nutton (2005) 225), (Boudon-Millot (2007) LXVIII)). The games of chapter 1-2 are certainly set in Rome. All this has to happen after the return of the emperors in 203, and that in my view sets 204 as the earliest possible date for the composition of Ther.Pis.

#### Authenticity

The authenticity of the work had apparently already been in question for a considerable time in 1565 when the translation by Rota (1565) had the heading: "Sunt qui negent hunc librum esse Galeni, nec sine causa. Aëtius tamen in capite de Sale Theriaco, citat Galeni verba, ex hoc libro desumpta". My view is that there are very strong but not conclusive grounds for doubting the authenticity of the work arising partly from doctrinal and partly from stylistic matters, and partly from the author's self-presentation compared to that of Galen elsewhere in the corpus.

Nutton (1997, pp. 133-139) and Swain (1998) review the debate in some detail including the views of Coturri (1959), Richter-Bernburg (1969) and those of Ackermann in the Historia literaria reproduced in Vol. 1 of Kühn, reproducing the views of Labbé (1660) 22-35. Labbé's has remained throughout the most comprehensive statement of the case against authenticity: Nutton (1997) 137 n. 9 "As far as I am aware, this is the last detailed examination of the question of authenticity, but its author rarely documents his assertions about style and content". Even Labbé does not in my view consider any of the strongest arguments against authenticity. Klass in Pauly RE 1950 Band 22 rejects in the strongest terms the argument against authenticity: "Der eigentliche Urheber der Unechtheitserklärung ist Philipp Labbé, der in seinem 1660 erschienenen Claudii Galeni chronologicum elogium drei Gründe für die Unechtheit anführt, die bis auf den heutigen Tag—anscheinend ohne erneute gründliche Prüfung-ständig wiederholt wurden. Die Beweiskraft sämtlicher vorgebrachten Gründe ist aber meines Erachtens so geringfügig, dass mann die Schrift als echt gelten lassen sollte, bis die Unechtheit wirklich überzeugend nachgewiesen ist. Im folgenden nenne ich daher den Verfasser der Schrift mit dem überlieferten Name Galen. Aber selbst wenn die Unechtheit erwiesen ist, ist damit gegen die in der Widmung genannte Person nichts ausgesagt, da die Schrift spätestens zwölf Jahre nach Galens Tode geschrieben sein muss; der Verfasser der Schrift, sei es nun ein Fälscher oder mag die Schrift erst später dem Galen unterschoben sein, hatte jedenfalls sichere Kenntnis von der zwischen Galen und P. bestehenden Freundschaft." (1802 col b).

Klass is wrong as far as the chronology of the debate is concerned. Labbé is by no means the "eigentliche Urheber der Unechtheitserklärung": as noted above Rota refers to a widespread belief that the work is not by Galen a century before Labbé. Furthermore Klass does not himself re-examine the arguments based on Labbé which he rightly identifies as requiring re-examination, nor inquire whether there are other and better arguments on the subject; his position is therefore essentially about the state of the evidence available to him rather than about the substantive question itself.

#### Self-presentation

A weak version of the self-presentation argument against Galen's authorship is refuted by Swain (1998) 432: this weak version says that Galen states in Opt.Med. that he has no time for flattery; Ther.Pis. contains flattery; therefore Galen cannot be the author of *Ther.Pis*. This argument can be rejected on the general grounds that self-made character evidence is unsatisfactory as being liable to be tainted by bias and lack of insight. In the case of Galen it can be more specifically answered on the basis of evidence elsewhere that as a servant of the emperors he is prepared to compromise his beliefs in pursuit of good relations with his employers: when women of the imperial family or the emperors themselves (βασιλικαὶ γυναῖκες ἢ οἱ βασιλεῖς αὐτοὶ) demand of doctors services which are cosmetic and not medical, it is not practicable for the doctor to refuse them by telling them to learn the distinction between cosmetics per se and the cosmetic part of medicine (ούκ ένεστιν άρνεῖσθαι διδάσκοντας διαφέρειν την κομμωτικήν τοῦ κοσμητικοῦ μέρους της ἰατρικής) (Comp. Med. Loc. I: XII 435.1–5). The prudent doctor knuckles down and learns the rudiments of cosmetics. Therefore we should not question the authenticity of Ther.Pis. on the basis that it suggests a deviation by Galen from his core beliefs in pursuit of good relations with Severus and Caracalla.

#### b History

Ther.Pis. gives the following anecdote:

έμοὶ δὲ καὶ ἐξ ἱστορίας τὶς ἐμήνυσε λόγος ὡς ἄρα πολεμεῖν Ῥωμαίοις τἰς ἐθέλων καὶ τὸ δυνατὸν ἐκ τῆς στρατιωτικῆς τάξεως οὐκ ἔχων, ἀνθρωπος δὲ, φησὶ, Καρχηδόνιος οὗτος, ἐμπλήσας πολλὰς χύτρας θηρίων τῶν ἀναιρεῖν ὀξέως δυναμένων, οὕτως αὐτὰ προσέβαλε πρὸς τοὺς πολεμίους. οἱ δὲ τὸ πεμπόμενον οὐ νοοῦντες καὶ διὰ τοῦτ' ἀφύλακτοι μένοντες, οὐ γὰρ ἦν τοιαῦτα εἰθισμένα ἐν τοῖς πολεμίοις πέμπεσθαι βέλη, ταχέως πίπτοντες ἀπέθνησκον· καὶ διὰ τοῦτο πολλάκις ὁ ἀνθρωπος οὗτος τῆ τοιαύτῃ πρὸς τὸ πολεμεῖν πανουργία, ὥσπερ τι καὶ αὐτὸς θηρίον ὑπάρχων, διέφυγε τῶν ἐναντίων τὰς χεῖρας. διόπερ οἶμαι, καὶ εἰς τὰς τοιαύτας χρείας ὑμῖν τοῖς ὑπερέχουσι καὶ τοῦς τῶν στρατοπέδων ἄρχουσιν, ἀναγκαῖον ἔχειν καὶ τοῦτο τὸ φάρμακον, διὰ τὴν τοῦ πολεμεῖν ἐνίοτε γινομένην ἀνάγκην.

p. 86 l. 12 ff.

A certain story from history told me that someone wanted to go to war with Rome but did not have the troops to do it with and this man, a Carthaginian, the story goes, filled many jars with animals whose bite can kill instantaneously and shot them at the enemy. And they did not realise

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what was being shot at them and were off their guard, because these were not the kind of weapon usually shot in war, and quickly fell and died; and so on many occasions this man because of this disgraceful method of waging war as if he himself were some kind of wild beast escaped the hands of his enemies. So I think your rulers and the commanders of the infantry should have this drug because of the necessity, from time to time, of going to war.

We know this story from other sources and can identify the parties as Hannibal and Eumenes II of Pergamum: Nepos Vitae: Hannibal 10-11. What is striking is that the author of Ther.Pis. does not make this identification. Galen is proud of his Pergamene heritage. There is no mention of Eumenes elsewhere in the corpus but on the three occasions he refers to a king of Pergamum, (Attalus III in each case), he emphasises his link as a fellow Pergamene: he calls him ό γοῦν ήμέτερος γενόμενός ποτε βασιλεὺς Ἄτταλος SMT X: XII 251.3–4; ὁ καθ' ἡμᾶς Ἄτταλος Ant. I: XIV 2.4; τοῦ βασιλεύσαντος ἡμῶν τῶν Περγαμηνῶν Ἀττάλου Comp. Med. Gen. II: XIII 416.11–12. There is no doubt that Eumenes II is an important figure in Pergamene history. One of the most conspicuous buildings on the acropolis is Eumenes' Altar of Zeus which has a magnificent frieze depicting the battle of the gods and giants. On the north frieze there is a female figure getting ready to throw a jar of serpents in what is presumably a reference to this incident (Stewart (2000) 54 cites disagreements with this "oft-repeated view"; but if it is oft-repeated now the same was presumably true in antiquity, and a native of Pergamum can be assumed to have been aware of it even if he disagreed with it). It is inconceivable that Galen would not know the identities of the parties in the anecdote: if he did know them why would he not supply them? The author of Ther.Pis. tells other historical anecdotes and is scrupulous about supplying proper names even for the minor characters; he gives the names of Cleopatra's maidservants in the description of her death and the name of Mithridates' servant who had to kill him because of his immunity to poison. He is our sole source for this name. He is a writer who likes proper names.

It is not impossible to conceive of reasons for suppressing the names in the anecdote. Eumenes lost the battle, which makes the story embarrassing both for Pergamum and for Rome. But if the author is embarrassed, then omitting the story altogether would suppress it more effectively: it is not integral to the treatise. The other problem with that argument is that the treatise contains much material intended to flatter the Roman emperors. The anecdote does expressly identify the losing side with the Romans (with whom Eumenes was in alliance): if the author were sanitising it for reasons of tact he would presumably have omitted that identification too.

#### c Julius Africanus Cesti

The Thesaurus Linguae Graecae (http://www.tlg.uci.edu/) discloses the following parallel passages in Africanus *Cesti* and in *Ther.Pis.*: O de dručny druč druč druč dručny d

#### Sextus Julius Africanus Cesti 3.31.1 = Wallraff D56

ό δὲ δρύϊνος ὄφις ἐν ταῖς τῶν δρυῶν ῥίζαις τὸν βίον ποιούμενος οὕτως πονηρός ἐστι πρὸς τὸ διαφθεῖραι κακῶς, ὥστε εἴ τις, φασὶν, αὐτοῦ ἐπιβαίη, ἐκδέρεσθαι αὐτοῦ τοὺς πόδας, καὶ οἴδημα πολὺ γίνεσθαι καθ' ὅλων τῶν σκελῶν. καὶ ἔτι τὸ θαυμασιώτερόν φασιν, ὅτι καὶ εἰ θεραπεύειν τις ἐθέλοι, τούτων τὰς χεῖρας ἐκδέρεσθαι.

#### *Ther.Pis.* K XIV 234–238 = p. 102 l. 10

The oak snake lives its whole life in the roots of the oak tree **not frequenting other trees** and is such a threat of a horrible death that if anyone treads on it, *they say*, his feet are flayed and his legs swell up all over. Still more amazingly *they say that* if someone tries to treat the victim his hands are flayed.

The parallel was first noted by Hoppe (1928) 1.

These passages are clearly very closely related. The only differences between them except the trivial are that the *Cesti* contains the words in bold "and not frequenting other trees" which *Ther.Pis.* omits and *Ther.Pis.* contains the words in italics "they say (that)" which the *Cesti* omits. The similarity is too close to be a coincidence. One passage is a borrowing from the other, or they have a common ancestor. Which precedes the other?

The *Cesti* of Africanus can be dated to within the reign of Severus Alexander (222–235) (Adler (2009), 1; Wallraff (2012) xix) to whom they were dedicated according to Georgius Syncellus (*Ecloga chronographica* 439.17) and for whom Africanus himself claims in the *Cesti* to have done some work in the library of the Pantheon in Rome (P.Oxy. 3 412 36–41= tlg *Cesti* 5.1.52–54). Accordingly if the original of our passage is the *Cesti* and *Ther.Pis*. is the copy this requires

Galen to write *Ther.Pis.* in his eighty third year at the earliest (if he lived to that age, which we have no reason to suppose he did). Conversely if *Ther.Pis.* is the origin of the passage no problem arises—Galen could have written the treatise by say 210 giving Africanus a dozen years to come across a copy of it.

So which is the original and which the borrowing? There are perhaps indications in the text that the *Cesti* may be the original. First the occurrence of φασιν (twice) in Ther.Pis. is an admission that the information is second hand. Secondly the omission from *Ther.Pis.* of xai  $\pi \rho \delta \zeta$  allows be values of the constant of the winding around other trees") is suggestive. In general terms one would expect the borrower if he added to the text at all to add explanatory glosses recognisable by being too easily understandable—e.g. in this passage a hypothetical clause saying "and that is why they are called oak snakes" would be evidence that the version containing it was the borrowing and not the original. Conversely one would expect the borrower to omit what he does not understand in the original. The reasoning is the same in both cases, that the borrower is more concerned with the comprehensibility of the text (which he can judge for himself) than with other matters such as accuracy which he cannot (because if he could he would not be relying on someone else's text in the first place). In this case the missing text suffers from being too hard rather than too easy to understand, suggesting that the text which lacks it is the borrowing and not the original.

We cannot of course exclude a shared common source for the two texts. On the other hand, presented with just two texts the most parsimonious hypothesis is that we have one original and one borrowing rather than two separate borrowings from an otherwise unknown common source. There is also no certainty about who borrows from whom: it is conceivable that Africanus takes over the passage from *Ther.Pis.*, discards the words "they say (that)" for whatever reason and adds the gloss xaì  $\pi\rho\delta\varsigma$  ällois  $\delta\epsilon\nu\delta\rho\rho\sigma\varsigma$  oùx älliv $\delta\circ\dot{\mu}$ evo $\varsigma$ . If oùx älliv $\delta\circ\dot{\mu}$ evo $\varsigma$  is the correct reading, it is so redundant that we should be justified in thinking it an unnecessarily obvious gloss added by a borrower rather than a difficult point omitted by him because he did not understand it. Africanus does sometimes borrow in the *Cesti* with and without attribution (Adler (2009), 11).

On the other hand the passage contains the expression  $\delta i \alpha \varphi \theta \epsilon \hat{\rho} \alpha i \kappa \alpha x \hat{\omega} \varphi$ which is a favourite of the author of *Ther.Pis.* though not of Galen generally (p. 52 below) and rare elsewhere; its use constitutes an argument in favour of the passage in *Ther.Pis.* having priority and therefore of having been written and been in circulation (not necessarily attributed to Galen) before the *Cesti.* 

If *Ther.Pis*. borrows from the *Cesti* it is unlikely that *Ther.Pis*. is the work of Galen since if it were he would have to have written it in extreme old age and

we would have to explain why he gives it a dramatic date set in the past (the reference to present emperors (τŵν νῦν μεγίστων αὐτοκρατόρων p. 72 l. 9) is not valid for any date after Geta's death in 211). If *Ther.Pis.* borrows from the *Cesti* it must be a more or less fictional work designed by a later author to give the appearance of being written by Galen or one of his contemporaries.

#### d Doctrine—Pharmacology

There is a discrepancy between the treatment and taxonomy of the type of snake known as the  $\delta\iota\psi\alpha\varsigma$ , the thirst snake, in *Ther.Pis.* and in other Galenic works whose authorship is not in question.

The importance in Galen's thought of the flesh of the ἔχιδνα, the viper, as an ingredient of theriac is clear from the following passage:

Τὰς ἰωμένας τὰ πάθη δυνάμεις οὐκ ἔξωθεν ἐπιτιθεμένας, ἀλλ' εἴσω τοῦ σώματος λαμβανομένας άντιδότους όνομάζουσιν οἱ ἰατροί. τρεῖς δ' αὐτῶν εἰσιν αἱ πᾶσαι διαφοραί. τινές μέν γὰρ ἕνεκα τῶν θανασίμων προσφέρονται φαρμάκων, τινές δὲ των ἰοβόλων ὀνομαζομένων θηρίων, τινὲς δὲ τοῖς ἐκ φαύλης διαίτης γιγνομένοις πάθεσιν ἀρήγουσιν. ἔνιαι δὲ τὰς τρεῖς ἐπαγγέλλονται χρείας, ὥσπερ καὶ ἡ θηριακή καλουμένη, συντεθείσα μὲν ὑπὸ Ἀνδρομάχου τοῦ ἰατροῦ, παρωσαμένη δὲ τὴν Μιθριδάτειον ὀνομαζομένην, καὶ αὐτὴν ἀπὸ τοῦ συνθέντος αὐτὴν οὕτω κληθεῖσαν. ὁ γάρ τοι Μιθριδάτης οὗτος, ὥσπερ καὶ ὁ καθ' ἡμᾶς Ἄτταλος, ἔσπευσεν έμπειρίαν ἔχειν ἁπάντων σχεδὸν τῶν ἁπλῶν φαρμάκων, ὅσα τοῖς ὀλεθρίοις ἀντιτέτακται, πειράζων αὐτῶν τὰς δυνάμεις ἐπὶ πονηρῶν ἀνθρώπων, ὧν θάνατος κατέγνωστο. τινά μέν οὖν αὐτῶν ἀνεῦρεν ἐπὶ φαλαγγίων ἰδίως ἁρμόζοντα, τινὰ δὲ ἐπὶ σκορπίων, ὥσπερ ἐπὶ τῶν ἐγιδνῶν ἄλλα. καὶ ἐπὶ τῶν ἀναιρούντων φαρμάκων τὰ μὲν ἐπὶ ἀκονίτου, τὰ δὲ ἐπὶ λαγωοῦ τοῦ θαλαττίου, τὰ δ' ἐπ' ἄλλου τινὸς ἢ ἄλλου. πάντα δ' οὖν αὐτὰ μίξας ὁ Μιθριδάτης ἕν ἐποίησε φάρμακον, ἐλπίσας ἕξειν ἀρωγὸν ἐπὶ πᾶσι τοῖς ὀλεθρίοις. ὕστερον δὲ Ἀνδρόμαχος ὁ Νέρωνος ἀρχιατρός, ἕνια μὲν προσθεὶς, ἔνια δὲ ἀφελών, ἐποίησε τὴν θηριακὴν ὀνομαζο μένην άντίδοτον, ούκ όλίγην έχιδνών σάρκα μίξας τοῖς ἄλλοις, ἡν οὐκ εἶχεν ἡ Μιθριδάτειος.

Things which cure diseases which are not applied externally but taken inside the body are called antidotes by doctors. They all fall into one of three categories. Some are administered on account of lethal drugs, some on account of the poisonous animals known as beasts, and some alleviate disease arising from a defective lifestyle. Some lay claim to all three uses, like the one called theriac, formulated by Andromachus the doctor by modifying the drug called Mithridatium, after its inventor. For this Mithridates like Attalus our contemporary wanted to test the effect of pretty much every single simple drug which is used against poisons, trying their effects on criminals condemned to death. He found some of help against poisonous spiders, some against scorpions and others against vipers. In the case of poisonous drugs he found some effective against aconite, some against the sea hare, and others against other substances. So Mithridates mixed all these together and made one drug hoping to have a defence against all ills. Later on Andromachus Nero's chief doctor adding some ingredients and dispensing with others made the antidote called theriac, mixing a good deal of viper's flesh in the medicine, which Mithridatium did not have.

Ant. I: XIV 1.8-2.17

Note that the crucial point is that Andromachus, Nero's doctor, is the inventor of theriac and that his key innovation is the addition of the flesh of the viper, έχιδνα, to the antidote devised by Mithridates VI of Pontus and called Mithridatium. The importance of viper's flesh is apparent in this passage from the fact that it is the only change to the recipe which Galen specifically identifies. Elsewhere in Galen the term τὸ διὰ τῶν ἐχιδνῶν φάρμαχον, the drug made from vipers, is used synonymously with θηριαχή: e.g. *MM* XIV: X 986 5–6 τό τε διὰ τῶν ἐχιδνῶν (sc. φάρμαχον), ὅπερ ὀνομάζουσι θηριαχὴν ἀντίδοτον.

This view of the primacy of the viper's flesh in the recipe for theriac is clearly shared by the author of Ther.Pis. Of the nineteen chapters of the work VI and VII are given to a transcription of Andromachus' poem to Nero giving the recipe for theriac. Chapter VIII is about why he chose vipers above other kinds of snake, chapter IX about why only certain parts of the viper are used and chapter X about how parts of the body of a poisonous animal can be beneficial rather than harmful. The διψάς features in chapter VIII which deals with the question why Andromachus chose viper flesh rather than that of other snakes. The answer to this question is that Andromachus does not explain his choice but the author of Ther.Pis. considers it to be because vipers "have less destructive power in them than other beasts," έμοι δε δοκοῦσι τῶν ἄλλων θηρίων αὗται μὴ τοσαύτην ἐν τοῖς σώμασι τὴν φθοροποιὸν δύναμιν ἔχειν (p. 102 l. 5). (Note that in chapter IX p. 106 l. 17 we are told that the female viper is the most dangerous of all; but the explanation why this is so has nothing to do with poison: see note *ad loc*.) The chapter then describes the destructive power of various snakes which are not vipers, including the διψάς, and concludes with a kind of Ringkomposition: "You see now how of necessity we do not mix the flesh of such beasts into the drug because they have so much destructive power in their bodies"—ວ່ວຊີຊ ວບໍ່ນ όπως ήμεῖς δεόντως οὐδὲν τῶν τοιούτων θηρίων ἐγκαταμίγνυμεν τῷ φαρμάκῳ, διὰ την τοσαύτην έν τοῖς σώμασιν αὐτῶν φθοροποιὸν δύναμιν. (p. 106 l. 7).

The first point to note is that to the author of *Ther.Pis*. the διψάς is not a viper. This is not a point which arises incidentally—the διψάς owes its appearance in the argument in chapter 8 to its being one of a number of paradigm cases of snakes which are not vipers and therefore not suitable as ingredients of theriac. Secondly, consider what *Ther.Pis*. tells us about the διψάς:

ώσπερ γε καὶ οἱ ἀπὸ τῆς διψάδος ὑπὸ τοῦ καύσου διαφθειρόμενοι κακῶς, καὶ γὰρ οὖτοι διψῶντες πάνυ καὶ διακαιόμενοι σφοδρῶς, ἐνίοτε καὶ διαρρηγνύμενοι, τελευτῶσιν.

p. 102 l. 18

Similarly those bitten by the snake die horribly of fever, for they die very thirsty and burning up completely, sometimes even bursting.

The sequence of thought in this passage in *Ther.Pis*. as transmitted in the Greek tradition is defective—neither thirst nor "burning up", especially metaphorical burning up, leads to bursting or breaking into pieces. The missing term in the argument is drinking: victims are so thirsty that they drink water till they burst. This is clear from Galen's statement of this belief about vipers in *SMT* XI: XII 316 1–4:

ἐπεὶ δ' ἔνιοι τῶν φαγόντων αὐτὴν ἑάλωσαν δίψει σφοδροτάτῳ καὶ διὰ τοῦτο προσαγορεύουσι τὰς ἐχίδνας διψάδας. εἰσὶ δ' οἳ καὶ τοὺς δηχθέντας ὑπ' αὐτῶν φασιν οὐκ ἐμπίπλασθαι πίνοντας, ἀλλὰ διαρρήγνυσθαι πρότερον ἢ παύσασθαι διψῶντας.

Since some who have eaten it (sc. the flesh of vipers) have been overcome by very great thirst, and for this reason they call vipers  $\delta\iota\psi\dot{\alpha}\delta\alpha\varsigma$ . There are some who say that even those bitten by them drink but are not satisfied but burst before they can stop drinking.

The Arabic version of *Ther.Pis.* has a reading which agrees with *SMT* and is clearly superior to the Greek tradition of *Ther.Pis.*: "diese Schlange erregt Durst; wenn sie jemanden gebissen hat, entfacht sie in ihm übermüssige Hitze, sodass er heftigen Durst und glühendes Brennen verspürt; er trinkt solange Wasser, bis sein Leib platzt und er stirbt." (Richter-Bernburg 1969, 71).

So in *Ther.Pis.* the  $\delta\iota\psi d\varsigma$  is a species of snake (but emphatically not a species of viper) whose only characteristic identified by the author is that its bite causes the victim to die either of thirst or of bursting from drinking to quench the thirst. Thanks to the TLG we can exhaustively review other discussions of the

διψάς in Galen. In *Caus. Symp.* I: VII 135.5–7 Galen refers in an aside to someone who dies of thirst after eating διψάς flesh:

ἀπαύστοις δὲ δίψεσι καταληφθεῖσιν, ἐξ ὧν περ καὶ ἀποθανόντας οἶδα τόν τε καταφαγόντα τὴν ἔχιδναν (ἦν δὲ ἄρα διψὰς)

... and to those who are overtaken by ceaseless thirst, which I have also known to kill a man who ate a viper (for it was a  $\delta\iota\psi\alpha\varsigma$ ).

So here the  $\delta\iota\psi d\varsigma$  is a kind of  $\xi \chi\iota \delta\nu \alpha$ , and kills by thirst those who eat it rather than are bitten by it.

In *SMT* there is extensive discussion of the  $\delta\iota\psi\alpha\varsigma$  beginning at *SMT* XI: XII 311.14

[α'. Περὶ σαρκὸς ἐχίδνης.] Οὐχ ἅπασαι τῶν ζώων αἱ σάρκες ἄνθρωπον τρέφουσιν, ἀλλ' ἐνίων εἰσὶ καὶ θανάσιμοι τῶν φαρμακωδῶν οὐδὲν ἦττον, ἂ καλοῦσι δηλητήρια, καὶ τῶν τρεφουσῶν δὲ ἡμᾶς σαρκῶν ἔνιαι μὲν αὐτὸ τοῦτο μόνον εἰσὶ τροφαὶ, τινὲς δὲ πρὸς τῷ τρέφειν ἔχουσι καὶ τὴν ὡς φαρμάκου δύναμιν, ἐπειδὴ κατὰ τὸ ξηραίνειν ἢ ὑγραίνειν καὶ θερμαίνειν ἢ ψύχειν, ἀλλοιοῦσι τὸ σῶμα:

The relevant passage reads as follows:

άλλος δέ τις άνὴρ πλούσιος οὐχ ἡμεδαπὸς οὗτός γε, ἀλλ' ἐκ μέσης Θράκης ἧκεν, όνείρατος προτρέψαντος αὐτὸν εἰς τὸ Πέργαμον, εἶτα τοῦ θεοῦ προστάξαντος όναρ αὐτῷ πίνειν τε τοῦ διὰ τῶν ἐχιδνῶν φαρμάκου καθ' ἑκάστην ἡμέραν καὶ χρίειν ἔξωθεν τὸ σῶμα, μετέπεσεν τὸ πάθος οὐ μετὰ πολλὰς ἡμέρας εἰς λέπραν, έθεραπεύθη τε πάλιν οἷς ὁ θεὸς ἐκέλευεν φαρμάκοις καὶ τοῦτο τὸ νόσημα. ἡ μέν δή των έχιδνων σάρξ είς τοσοῦτον ἥκει τῆς ξηραντικῆς δυνάμεως· ἐπεὶ δ' ένιοι τῶν φαγόντων αὐτὴν ἑάλωσαν δίψει σφοδροτάτῳ καὶ διὰ τοῦτο προσαγορεύουσι τὰς ἐχίδνας διψάδας. εἰσὶ δ' οἳ καὶ τοὺς δηχθέντας ὑπ' αὐτῶν φασιν ούκ ἐμπίπλασθαι πίνοντας, ἀλλὰ διαρρήγνυσθαι πρότερον ἢ παύσασθαι διψῶντας. διὰ τοῦτο τῶν ἐν Ῥώμη τὰς ἐχίδνας θηρευόντων, οὓς ὀνομάζουσι Μαρσοὺς, έπυθόμην ει τι σημεῖον ἔχοιέν με διδάξαι διακριτικὸν ἑκατέρου τοῦ γένους τῶν έχιδνών· οί δ' οὐδὲν ὅλως ἔφασαν εἶναι γένος ἐχιδνῶν διψάδων, ἀλλὰ τὰς παρὰ θαλάττη καὶ τόποις άλμυρίδα πολλὴν ἔχουσι διαιτωμένας άλμυρὰν ἴσχειν τὴν σάρκα, διὸ καὶ κατὰ Λιβύην πολλὰς γίγνεσθαι τοιαύτας, ἐν Ἰταλία δ' οὐκ εἶναι διὰ τὴν ὑγρότητα τῆς χώρας. ταῦτα μὲν οὖν ἤκουσα τῶν Μαρσῶν λεγόντων, οὐ μὴν ἔχω βεβαίως εἰπεῖν εἴτ' ἀληθεύουσι τὸ σύμπαν εἴτε καὶ ψεύδονται κατά τι. τὸ μὲν γὰρ ἐν οἶς εἰρήκασι χωρίοις γίνεσθαί τινας ἐχίδνας άλυκὴν ἐχούσας τὴν σάρκα πιθανώτατον εἶναί μοι δοκεῖ. συμμεταβαλλούσας γὰρ οἶδα ταῖς τροφαῖς

τὰς τῶν ζώων σάρκας, οὐ μὴν ὡς οὐδέν ἐστι γένος ἐχιδνῶν διψάδων ἀποφήνασθαι δύναμαι. τὸ δ' οὖν ἀσφαλέστατόν ἐστι φυλάττεσθαι τὰς ἐν τοῖς τοιούτοις χωρίοις ἐχίδνας θηρεύειν εἰς ἐδωδὴν ἢ φαρμάκου κατασκευὴν, ὁποῖόν ἐστι καὶ τουτὶ τὸ ἔνδοξον, ὃ καλοῦσιν ἅπαντες σχεδὸν ἰατροὶ θηριακήν.

Another man, a rich one, not a native of Pergamum but from the middle of Thrace, came to Pergamum on the instructions of a dream; the god then sent him a dream telling him both to drink the medicine made from vipers (τοῦ διὰ τῶν ἐχιδνῶν φαρμάχου) every day and to rub it externally on his body. The disease changed after a few days to leprosy and this disease in turn was also cured by drugs ordained by the god. This shows what a great drying faculty the flesh of vipers has, since some who have eaten it have been overcome by very great thirst, and for this reason they call vipers διψάδας—thirst snakes. There are some who say that even those bitten by vipers drink but are not satisfied, but burst before they can stop drinking. For this reason I asked the snake hunters of Rome whom they call Marsi whether they could tell me of any distinguishing feature by which to recognise the two types of viper. But they vehemently denied that there is a species of thirst-inducing viper (οὐδὲν ὅλως ἔφασαν εἶναι γένος ἐχιδνῶν διψάδων); rather, those which live by the sea and in places with large areas of salt marsh have salty flesh, which is why there are many of them in Libya, but not in Italy because of the dampness of the country. This is what I heard from the Marsi, but I cannot say for sure whether they told the truth in all respects or were wrong in relation to something. For I find it very credible that there are vipers with salty flesh to be found in the kinds of places they mention, for I know that the flesh of animals is transformed by what they eat, but I cannot say for absolute certain that there is no such species of viper as the  $\delta\iota\psi\alpha\varsigma$ . So the safest thing is to avoid hunting vipers in this type of area either for food or the preparation of drugs such as the famous one which almost all doctors call theriac.

SMT XI: XII 315.10-317.4

Here again the  $\delta i\psi d\zeta$  is either a normal viper which acquires its salty characteristic from its environment, or a specific kind of viper (genetically distinct from the normal kind)—neither view being compatible with the contrast drawn in *Ther.Pis*. between the  $\delta i\psi d\zeta$  on the one hand and the viper on the other. Furthermore, the principal danger it poses is to those who eat it—not, as in *Ther.Pis*. to those bitten by it. Note that although Galen mentions the theory that  $\delta i\psi d\zeta$ bites also cause death by thirst he does not record having canvassed it with the professional snake hunters, and if he did so does not think it worth recording their response.

In *Ant*. there are warnings about catching vipers in summer (*Ant*. I: XIV 45.5–7) and in coastal areas (XIV 46.9–12) because their flesh used as an ingredient in theriac will be  $\delta\iota\psi\omega\delta\eta\varsigma$ , thirst-inducing. So in both cases the issue is not being bitten by the viper but eating its flesh. The term  $\delta\iota\psi\alpha\varsigma$  itself is not used in either passage of *Ant*.

To summarise: in Galen's works except Ther.Pis., either there is a species of viper (ἔχιδνα) called διψάς to eat whose flesh entails the risk of death by thirst, or there is no such separate species but the flesh of normal vipers can become dangerously thirst-inducing if they live in salty environments, or it is the case both that the  $\delta_i\psi\alpha\zeta$  exists as a separate species and that other vipers may also have the same poisonous flesh as the  $\delta_{i}\psi_{\alpha\zeta}$  if they live near salt water (SMT XI: XII 316.1–317.4). The maker of theriac should minimise the danger of incorporating dangerous flesh into the recipe by not catching vipers in salty environments (SMT XI: XII 317.1-4, Ant. I: XIV 46.9-12) or in the summer (Ant. I: XIV.45.5-8). Caus. Symp. I: VII 135.5-7 refers only in passing to the issue but confirms that the  $\delta_1\psi_{\alpha\zeta}$  is an  $\xi_1\delta_2$  and that it kills those who eat its flesh. The question whether it also kills by thirst those it bites arises only in SMT XI: XII 316.3-5 where it is implied that this is secondary to its main quality of killing those who eat it, and that the belief is held by others but not by Galen: εໄσໄ δ' ວໂ καὶ τοὺς δηχθέντας ὑπ' αὐτῶν φασιν οὐκ ἐμπίπλασθαι πίνοντας, ἀλλὰ διαρρήγνυσθαι πρότερον ἢ παύσασθαι διψῶντας. The phrase εἰσὶ δ' οἳ καὶ / εἰσὶ δὲ καὶ οἳ followed by a verb denoting a certain belief or practice is frequent in Galen and routinely carries the implication that Galen does not subscribe to the belief or practice in question.

So in all these passages from sources other than *Ther.Pis*. Galen is consistent in the view that the  $\delta_i\psi\dot{\alpha}\zeta$  is either identical to, or a separate but hard-todistinguish subspecies of,  $\xi\chi_i\partial_{\nu\alpha}$  and that the main threat it presents is to those who eat it. In *Ther.Pis*. there is no reference to the dangers of eating it, and it has its place in the argument precisely because it is not in the author's view a species of  $\xi\chi_i\partial_{\nu\alpha}$ . Quite the reverse: chapter 8 of *Ther.Pis*. asks the question, of all the various species of snake, why do we use only the  $\xi\chi_i\partial_{\nu\alpha}$  in theriac? The answer it gives is that other snakes are just too dangerous and venomous, and the  $\delta_i\psi\dot{\alpha}\zeta$  is an example of a dangerous snake which is not an  $\xi\chi_i\partial_{\nu\alpha}$ . Consistent with this discrepancy, the detailed instructions for catching vipers in *Ther.Pis*. (p. 132 l. 9 ff.) give no guidance on how to avoid catching a type of viper whose flesh can cause potentially lethal thirst. This is internally consistent the author believes that the  $\delta_i\psi\dot{\alpha}\zeta$  is not a viper, and is apparently unaware of the claim that the flesh of vipers may be dangerous to eat as having the same

consequence as he ascribes to the bite of the  $\delta\iota\psi\alpha\varsigma$ —but it is not consistent with the views on the matter expressed elsewhere by Galen.

Can the discrepancy be resolved? I do not see how it can be. One line of argument might be that Galen believes there to be two different types of snake which share the name  $\delta \psi \alpha \zeta$  because of the similar effects of eating the flesh of one and being bitten by the other. That is a perfectly conceivable state of affairs but SMT XI: XII 316.3-5 makes it clear that Galen does not believe that two separate species are involved—he attaches the power to kill by thirst by biting to the kind of ἔχιδνα which is called a διψάς, not to a different non-ἔχιδνα species. Another possible argument is that he has changed his mind between writing SMT and Ther.Pis. but this is unlikely for two reasons. First, there is nothing provisional about the views set out in *SMT*—Galen has made a point of investigating the relationship between ἔχιδνα and διψάς by interviewing the best qualified witnesses, the professional snake-catchers, and has critically considered (and partly rejected) their advice. Secondly, there is more than one change of mind that must be posited: the author of Ther.Pis. believes both that there is a non-ἔχιδνα species of διψάς which kills by biting, and that there is no danger to those who eat the flesh of the  $\xi_{\chi}(\delta v \alpha)$  that they may die of thirst because some or all ἔχιδναι are also διψάδες, at least at certain locations and/or at certain times of year. It is true that there is no express denial that the categories of ἔχιδναι and διψάδες overlap but the argument *e silentio* is strong, given that the existence of ἔχιδναι whose flesh sometimes or always has the property of being poisonous to those who consume it, renders it essential for the maker of theriac to know how to avoid incorporating the flesh of those ἔχιδναι into his product. Instructions on this point are indeed given in SMT XI: XII 317.1-4, Ant. I: XIV.45.5-8 and 46.9-12 but although Ther.Pis. deals at length with the proper time of year to catch ἔχιδναι and the mistakes made by the professional snake catchers it is entirely silent about how to avoid vipers with this poisonous flesh. The danger of poisoning is not remote or theoretical to Galen who as we have seen claimed direct knowledge of a case of a man dying after eating a διψάς (Caus. Symp. I: VII 135.5-7). In my view the most reasonable explanation for these discrepancies is that Galen is not the author of *Ther.Pis*.

Galen's view that the  $\delta\iota\psi d\varsigma$  is a viper and that it is poisonous to those who eat its flesh is idiosyncratic. The majority view is that expressed in *Ther.Pis.* that it is not a viper and is a danger to those bitten by it, not those who eat it. Nicander *Theriaca* 334–336:

Ναὶ μὴν διψάδος εἶδος ὁμώσεται αἰὲν ἐχίδνῃ παυροτέρῃ, θανάτου δὲ θοώτερος ἕξεται αἶσα οἶσιν ἐνισκίμψῃ βλοσυρὸν δάκος· —the διψάς resembles an ἔχιδνα (and therefore by implication is not itself one), and kills by attacking.

In Lucian *Dipsades* the διψάς is ὄφις οὐ πάνυ μέγας, ἐχίδνῃ ὅμοιος, τὸ δῆγμα βίαιος, τὸν ἰὸν παχύς, ὀδύνας μὲν ἀλήκτους ἐπάγων εὐθύς· (*Dipsades* 4.2–4)

It resembles, and therefore by implication is not itself, a viper, and its bite and poison are the mechanisms by which it produces fatal thirst.

In the Andromachus poem incorporated into *Ther.Pis.* and *Ant.*, the man who has taken Andromachus' theriac

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Οὐ ζοφερῆς ἔχιός τε καὶ ἀλγεινοῖο κεράστου Τύμματα, καὶ ξηρῆς διψάδος οὐκ
ἀλέγοι
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p. 88. l. 17

—he does not fear the blows of the  $\delta$ ιψάς.

In Damocrates as quoted in Ant.

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Δώσεις δὲ καὶ τοῖς ἐντυχοῦσιν ἑρπετοῖς, Τῶν ἰοβόλων τε θηρίων τοῖς δήγμασιν,
Ύδρων, κεραστῶν, ἀσπίδων, καὶ διψάδων, Καὶ τῶν ἐχιδνῶν, τῶν τε λυσσώντων
κυνῶν.
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Ant. I: XIV 90.14-16

Damocrates' theriac is to be given both to those bitten by the  $\delta\iota\psi\alpha\varsigma$  and to those bitten by the  $\xi\iota\omega\alpha$ , implying that these are two different kinds of snake.

Philumenus *de Ven. Anim.* 20 1–2:

20. (t.) διψάς τὸ θηρίον. (1.) ή δὲ διψάς καλεῖται ὑπ' ἐνίων θηριακῶν καύσων ὄφις. ἔστι δὲ κατὰ τὸ μέγεθος πήχεος ἑνός, ἐκ παχέος ἐπὶ λεπτὸν ἠγμένη περιέρρανται δὲ καθ' ὅλον τὸ σῶμα μελαίναις στιγμαῖς καὶ κιρραῖς, ἔχει δὲ τὴν κεφαλὴν στενοτάτην. (2.) τοῖς δὲ δηχθεῖσιν ὑπ' αὐτῆς παρέπεται ἅμα τῆ δήξει οἴδημα, φλεγμονὴ ἀντίτυπος. κοινὰ μὲν οὖν ταῦτα καὶ ἄλλοις ... διὰ δὲ ταῦτα ὀρεκτικώτερος ὁ πάσχων γίνεται πολὺ καυσούμενος, πλείονος δὲ ἰφάτων οὖτε δι' ἰδρώτων ποτοῦ, οὐδὲν ἐκκρίνει οὔτε δι' οὔρων οὔτε δι' ἰδρώτων οὔτε δι' ἐμέτων. ἀπόλυνται οὖν κατὰ δύο αἰτίας, ἢ δίψῃ πολλῆ πιεζόμενοι, εἰ μὴ λαμβάνοιεν ποτόν, ⟨ἢ λαμβάνοντες ποτὸν⟩ ἀπὸ πολλῆς πληρώσεως ἢ κατὰ τοὺς βουβῶνας κάτω ἢ πρὸς τῷ ἐπιγαστρίῳ ὡς ἐπὶ ὑδρωπικῶν τῶν καθ' ὑπέρχυσιν ῥηγνυμένων.

These sources all expressly or implicitly state that the  $\delta\iota\psi\dot{\alpha}\zeta$  is not a viper and that it presents the usual danger of poisonous snakes—i.e., that it bites. It is clear from the passages in *SMT*, *Caus. Symp.* and *Ant.* that Galen took the view that the  $\delta\iota\psi\dot{\alpha}\zeta$  is a viper and that it poisons those that eat it—a crucial point in a work describing how to make a drug incorporating viper flesh. *Ther.Pis.* sides with the traditional view against the view of Galen as it appears in all the discussions of the point, in those of his works whose authenticity is not disputed. The natural conclusion is that this constitutes evidence that *Ther.Pis.* is not by Galen.

In the case of the  $\delta_i\psi\dot{\alpha}\zeta$  the author may have wrongly assumed that Galen shares the standard view of the  $\delta_i\psi\dot{\alpha}\zeta$  that it is not a viper and that it is primarily a danger to those it bites—not an unreasonable assumption given that in *Ant*. Galen quotes the poems of Andromachus and Damocrates which imply that view. In fact the warnings in *Ant*. I: XIV.45.5–8 and 46.9–12 against catching vipers at times and in places where their flesh may be  $\delta_i\psi\dot{\omega}\delta\eta\varsigma$ , read in the light of *SMT* XI: XII 317.1–4, clearly affirm Galen's own belief that the  $\delta_i\psi\dot{\alpha}\zeta$  is an  $\xi\chi_i\delta\nu\alpha$ and that the danger it presents is that it induces thirst in those who eat it. This is not however obvious to anyone reading these warnings without being aware of the *SMT* passage because in *Ant*. Galen understates the case, in saying merely that the flesh of the  $\xi\chi_i\delta\nu\alpha$  induces thirst when he presumably means that it induces fatal thirst.

Similarly, the author of *Ther.Pis.* states without qualification that οἱ δὲ τοῦ κάστορος ὄρχεις ὁμοίως πινόμενοι σπασμοὺς ἰῶνται (the testicles of the beaver cure spasms) p. 110. l. 6: *SMT* XI: XII 337.3–4 confirms that "Ορχεις κάστορος ὀνομάζουσι καστόριον, that castoreum is synonymous with beaver's testicles.

άγνοοῦσι δὲ οἱ πλεῖστοι τῶν ἰατρῶν, ἐν τῆ τοῦ καστορίου χρήσει προσέχοντες τὸν νοῦν αὐτῷ μόνῷ τῷ τρέμειν ἢ σπασθαί τι μόριον, ἢ ἀναίσθητον ἢ ἀκίνητον εἶναι, ἢ δυσαίσθητον ἢ δυσκίνητον, μὴ γινώσκοντες ἐπόμενα τοιαῦτα συμπτώματα διαθέσεσι σώματος ἀνομοίαις. ἀλλὰ σύ γε παρ' Ἱπποκράτους μαθὼν ἐπὶ πληρώσει τε καὶ κενώσει γίγνεσθαι σπασμὸν, ἔνθα μὲν χρὴ κενῶσαι τὰ παρὰ φύσιν ἐν τοῖς νεύροις περιεχόμενα, καὶ πίνειν δίδου καὶ κατὰ τοῦ δέρματος ἔξωθεν ἐπιτίθει καστόριον. ἔνθα δὲ δι' ὑπερβάλλουσαν ξηρότητα γίγνεται σπασμὸς, ἐναντιώτατον εἶναι γίγνωσκε τὸ φάρμακον τοῦτο.

But most doctors in using castoreum pay attention only to the question whether a body part is trembling or going into spasm, not knowing whether the part is without feeling and immoveable or hard to perceive and to move, not knowing that such states of affairs arise from dissimilar dispositions of the body. But you, having learnt from Hippocrates that spasm arises both from emptiness and from fullness, should both give castoreum to drink and apply it externally to the skin when it is necessary to drain unnatural contents from the nerves. But when spasm results from an excess of dryness you should know that this drug has absolutely the opposite effect.

SMT XI: XII 338.10-339.2

Now it could be argued in either case that the requirement of absolute consistency within Galen's pharmacology is unrealistically stringent but the standard is set very high by Galen himself. If we apply his principles in both cases we can diagnose in *Ther.Pis*. the twin evils of  $\check{\alpha}\gamma\nu\sigma\iota\alpha$ , ignorance, and failure to observe  $\delta\iota\sigma\rho\iota\sigma\mu\delta\varsigma$ , distinction between similar or related but different things, against which Galen warns repeatedly in his pharmacological writings: see von Staden (1997) and van der Eijk (1997) and in the case of the dipsas/echidna issue the inaccuracy entails a high risk of the patient dying. In the case of castoreum the consequences of misprescription are less clear cut but the effect of prescribing it in the wrong case is ἐναντιώτατον (*SMT* XI: XII 339.2) to the effect it has in appropriate cases. It follows that an argument based on giving Galen an element of leeway must be supported by a second-order argument explaining why the standards applied are inconsistent with the standards imposed by Galen himself.

# e Doctrine—Hippocrates *Hippocrates* Aph. 4.5.

The next point where the author of *Ther.Pis*. apparently diverges from Galen involves the interpretation of Hippocrates. In advising on the appropriate time of year to take theriac the author of *Ther.Pis*. says:

Observe both the time and the place where you are going to take the drug. For when it is summer I do not advise you to take the drug at all. For the weather is hot and the body is harmed by being made even hotter; knowing this the most wonderful Hippocrates says that medicines taken before or under the dog star are difficult. For this season mostly brings fever to men.

*Ther.Pis*. XIV 285.10–16 = p. 152. l. 16 ff. and n. quoting HIPPOCRATES *Aph*. 4.5.

Leaving Galen on one side for the moment there is clear disagreement among translators as to what Hippocrates *Aph.* 4.5. actually means. Littré has "Pendant la canicule et avant la canicule les évacuations sont laborieuses." Jones (1931) has "At and just before the dog-star purging is troublesome". Chadwick and

Mann in the Penguin translation (Lloyd 1983) have "The administration of drugs is attended with difficulty at the rising of the Dog Star and shortly before". LSJ gives the primary meaning of  $\varphi \alpha \rho \mu \alpha \varkappa \varkappa \alpha$  as "the use of drugs, especially of purgatives". The two competing translations cannot both be right: either Hippocrates is talking about drugs in general or he is talking about purgative drugs. In isolation the passage could have either meaning: LSJ admits either possibility, though tilting the scales towards purgative drugs by use of the word "especially". It is clear from a reading of the whole of *Aph.* 4 that it is about purgative drugs, not about drugs in general, and Littré's translation is to be preferred to that of Chadwick and Mann. The crucial question however for these purposes is not what it means but what Galen thought it meant and we can answer that very clearly by reference to his commentary on the passage in the *Commentary on Hipp.Aph*.:

Ύπὸ κύνα καὶ πρὸ κυνὸς ἐργώδεες αἱ φαρμακεῖαι. — — — Ἐκπεπυρωμένη τε γὰρ ἡμῶν ἡ φύσις οὖσα τηνικαῦτα τὴν ἀπὸ τῶν καθαρτικῶν οἰκ οἴσει δριμύτητα διὸ καὶ πυρέττουσι πολλοὶ τῶν ἐν τούτῷ τῷ καιρῷ καθαρθέντων, ἀσθενής τε οὖσα ἡ δύναμις διὰ τὸ καῦμα προσκαταλυθήσεται τῆ καθάρσει. *Hipp.Aph.* XVIIb 664.1

Under and before the Dog star purgatives are a troublesome matter. For as our nature is much heated at that time it wil not tolerate the acridity from purgatives; for this reason many of those purged at this time run a fever, and the power being weak because of the burning heat will be weakened further by the purging.

And in his explicit statement in commenting on Hipp.Aph. 7.25 that

12. Ἐκ φαρμακοποσίης σπασμὸς θανατῶδες. — — Φαρμακοποσίας καὶ φαρμακείας ἰδίως εἴωθεν ὁ Ἱπποκράτης ὀνομάζειν τὰς τῶν καθαιρόντων φαρμακείας μόνον.

Hipp.Aph. XVIIIa 124.5–8

and again with the cognate verb φαρμαχεύεσθαι he correctly says that Hippocrates uses it not for any drug but for purgatives only:

14. λζ'. Οἱ εὖ τὰ σώματα ἔχοντες φαρμακεύεσθαι ἐργώδεες. — — Οὐ τοὺς ὅτιοῦν φάρμακον προσφερομένους φαρμακεύεσθαι λέγειν εἴωθεν ὁ Ἱπποκράτης, ἀλλ' ἐπὶ μόνων τῶν καθαιρόντων τοὑτῷ χρῆται τῷ ῥήματι. *Hipp.Aph*. XVIIb 536.1–6

Galen is not saying that Hippocrates only uses these words in this sense and would be wrong if he did say that, but that Hippocrates sometimes does this. Context provides the required definition. The point here is that the context is given in *Ther.Pis.* and in the commentaries on the Aphorisms and that the authors of *Ther.Pis.* on the one hand and the commentaries on the other interpret the word differently in an identical context.

So the passage of Hippocrates as understood by Galen and as intended by its author apparently fails to support the point which the author of *Ther.Pis.* wants it to support, because it is about purgative drugs and theriac is not a purgative drug; on the contrary, theriac is powerfully anti-purgative to the extent that the author of *Ther.Pis.* twice advises that the best test of theriac where it is suspected that it is adulterated or past its prime is to administer a purgative, and then theriac, to a test subject and see if purgation occurs. If it does not, the theriac is effective. (p. 70. l. 13, p. 138. l. 2).

Perhaps with ingenuity this discrepancy can be explained away: the point is, it could be said, that the summer is hot and is therefore a bad time to take (a) purgative drugs because they are also heating and (b) theriac which is not a purgative drug but is heating for other reasons (cf. the warning against taking it in hot countries p. 154 l. 14 ff.) and the author of Ther.Pis. is merely generalising (in an extremely elliptical way) the point made by Hippocrates. This argument is difficult to sustain for three reasons. First, there is Galen's clear, emphatic and repeated assertion of the meaning of *φαρμαχε*îα in Hippocrates. Secondly Galen does not in Hipp.Aph. XVIIb 664.1 refer to a heating effect of al papuaxela but rather to their δριμύτητα: the patient who is purged under the Dogstar is weakened first by καῦμα and secondly by κάθαρσις, not by two different types of heating arising from the season and the purging respectively. Thirdly, in Ther.Pis. the fact that theriac is anti-purgative is so important that it provides on its own a conclusive test whether the drug is genuine, and still potent. We know the misunderstanding is seductively easy to commit because scholars of the standing of Chadwick and Mann have committed it, but we know from Galen's own commentaries that Galen has not. The author of Ther.Pis. seems to take the opposite view to Galen's.

# Hippocrates Epid. 2.3.2.

It is possible that the author of *Ther.Pis*. makes the same mistake elsewhere of applying to drugs in general a passage of Hippocrates which applies, according to another work of Galen, to purgatives only; he quotes (p. 82. l. 23 ff. and n.) a version of Hippocrates *Epid*. 2.3.2. Kühn prints the text as it appears in L:

φαρμάκων δὲ τρόπους ἴσμεν ἐξ ὧν γεγένηται ὁκοῖα ἄττα. οὐ γὰρ πάντες ὁμοίως, ἀλλ' ἄλλοι ἄλλως σύγκεινται, καὶ ἄλλα ὅσα πρωϊαίτερον, ἢ ὀψιαίτερον ληφθέντα, καὶ οἱ διαχειρισμοὶ, οἶον ξηράναι, ἢ κόψαι, ἢ ἑψῆσαι, καὶ τὰ τοιαῦτα, ἕως τὰ πλεῖστα μειώσει πλείω καὶ ὁκοῖα ἑκάστῳ καὶ ἐφ' οἶσι νοσήμασι, καὶ ἐφ' ἧ τε τοῦ νοσήματος ἡλικία, ἰδέα, καὶ διαίτῃ ὁκοία, ἢ ὥρῃ ἔτεος, ὁκοίως ἀγωμεν, καὶ τὰ τοιαῦτα.

XIV 228.14 ff.

# Smith has

Φαρμάκων τρόπους ἴσμεν ἐξ ὧν γίνεται ὁκοῖα ἄσσα· οὐ γὰρ πάντες ὁμοίως ἀλλ' ἀλλοι ἄλλως εὖ κέονται· καὶ ἄλλοθι πρωϊαίτερον ἢ ὀψιαίτερον ληφθέντα· καὶ οἱ διαχειρισμοὶ οἶον ἢ ξηραναι ἢ κόψαι ἢ ἑψῆσαι καὶ τὰ τοιαῦτα, ἐῶ τὰ πλεῖστα· καὶ ὁκόσα ἑκάστῳ, καὶ ἐφ' οἶσι νοσήμασι, καὶ ὁπότε τοῦ νοσήματος, ἡλικίην, εἴδεα, δίαιταν, ὁκοίη ὥρη ἔτεος, καὶ ἥτις καὶ ὁκοίως ἀγομένη, καὶ τὰ τοιαῦτα. SMITH 1994 48

ἕως τὰ πλεῖστα in L is clearly wrong; ἐῶ τὰ πλεῖστα, "I pass over most things" as in Smith at least makes sense. μειώσει πλείω is hard to make any sense of; Rota in the Giuntine translation, followed by other translators, extracted the general meaning that most of the procedures listed reduce the bulk of the plant ("donec plurima plus minuant" Rota; "donec plerunque plurima minuantur" Chartier— "until most of them shrink more" more than what being unexplained). Minuantur makes better sense than minuant but μειόω in the active is transitive (LSJ s.v.). μείω ἢ πλείω seems to me the obvious emendation (compare Ἐφ' οἶσί τε καὶ ὁκοῖα τὰ σημεῖα, καὶ πλείω ἢ μείω γινόμενα, χάσμη, βἡξ, πταρμὸς, σκορδίνημα, ἔρευξις, φῦσα· πάντα τὰ τοιαῦτα διαφέρουσιν. (Hipp. Epid. 2.3.1.36–38)). My proposed reading in *Ther.Pis*. is therefore μείω ἢ πλείω for μειώσει πλείω. (p. 82. l. 23 ff. and n.)

 $\dot{\epsilon}$ ώ τὰ πλεῖστα if it is to stand must mean "I pass over most things" (Nutton 2005, 99). It is implicit elsewhere in the passage from the expression καὶ τὰ τοιαῦτα used twice and from the opening ἴσμεν—"we know" rather than "I am going to tell you"—that some detail is omitted, but to say that most matters are not covered goes much further than that and is out of place in a work whose

overall intention appears to be to convey the maximum amount of information in the most economical and unrhetorical style possible.

Given the "cryptic" (Nutton 2005, 99) nature of the passage and the overall similarity of shape between the expressions  $\mu\epsilon(\omega)$   $\pi\lambda\epsilon(\omega)/\mu\epsilon(\omega)$   $\sigma\epsilon(\omega)$ the one hand and  $\dot{\epsilon}\hat{\omega}/\ddot{\epsilon}\omega\zeta$  từ  $\pi\lambda\epsilon\hat{i}\sigma\tau\alpha$  on the other, we should entertain the possibility that  $\dot{\epsilon}\hat{\omega}/\ddot{\epsilon}\omega\zeta$  tà  $\pi\lambda\epsilon\hat{\zeta}\sigma\tau\alpha$  is an attempt to make sense of badly corrupt text (μειώσει πλείω vel sim.) which has in the *Ther.Pis*. tradition crept back from a marginal note into the text itself so that we get two corruptions of the one original, in which case  $\xi \omega \zeta \tau \alpha \pi \lambda \epsilon i \sigma \tau \alpha$  should be deleted. If so we could take the further step of emending the Hippocratic tradition to agree with that of Ther.Pis. by replacing  $\dot{\epsilon}\omega$   $\tau\dot{\alpha}$   $\pi\lambda\epsilon$ îστα with μείω η  $\pi\lambda\epsilon$ ίω and reading  $\dot{\delta}$ χοῖα for δκόσα, on the basis that έω τὰ πλεῖστα is hard enough to explain in the first place and particularly so if a credible alternative reading is available. The argument depends on the strength of the objection to  $\dot{\epsilon}\hat{\omega} \tau \dot{\alpha} \pi \lambda \epsilon \hat{\iota} \sigma \tau \alpha$ . In my view the objection is very strong-the words look like a half-hearted attempt at a rhetorical praetermissio in a context where rhetoric is out of place. (The only other use of  $\dot{\epsilon}\hat{\omega}$  in this sense in the Hippocratic corpus *De Decente Habitu* 1. 7–8, IX 226 is to indicate that he is not going to discuss a topic because he is not interested in it: Ἐῶ δὲ τουτέων τὰς μηδὲν ἐς χρέος πιπτούσας διαλέξιας· The author of our passage, Hipp. Epidemics 2, apparently wants to omit a topic although he is interested in it.)

There is of course a counter-argument to the effect that the whole passage from *Epidemics* 2 is cryptic, starting with the introductory  $\Phi \alpha \rho \mu \dot{\alpha} \kappa \omega \nu \delta \dot{\epsilon} \tau \rho \dot{\sigma} \pi \upsilon \varsigma$  $\ddot{\epsilon} \sigma \mu \epsilon \nu$  (where the text is not in dispute) and that  $\dot{\epsilon} \hat{\omega} \tau \dot{\alpha} \pi \lambda \epsilon \hat{\epsilon} \sigma \tau \alpha$  is in accordance with the spirit of the passage overall. This is really a matter of personal impression and my own view is that  $\dot{\epsilon} \hat{\omega} \tau \dot{\alpha} \pi \lambda \epsilon \hat{\epsilon} \sigma \tau \alpha$  is markedly more odd than the rest of the passage.

The Arabic text of *Ther.Pis.* gives a paraphrase of Hippocrates too loose to assist in elucidating the text. The Arabic text of *Commentary on Epidemics* 2 is very close to the Littré and in particular contains words corresponding to  $\dot{\epsilon}\hat{\omega} \tau \dot{\alpha} \pi \lambda \epsilon \hat{\imath} \sigma \tau \alpha$ :

(27) Hippocrates said: We know what these kinds of drugs consist of, how and what they are. For they are not all similar, but rather some of them are composed differently than others. This also constitutes a difference, whether someone takes them earlier or later, also their production, e.g. that they are dried, boiled, or crushed and the like. I will refrain from discussing any more than that, how much for each one, for which diseases, when during the illness, in accordance with age, appearance, regimen, which season it is and how it is progressing, and the like.

Personal communication from DR BINK HALLUM, Warwick Epidemics Project

# Galen's Commentary on Epid. 2.3.2

The *Commentary on Epid. II* in Kühn XVIIa is spurious, published in Venice in 1617 by Joannes Sozomenos and subsequently appearing in Chartier vol. 9 (Wenkebach CMG V 10.1 XXIII, Wenkebach (1917), Hankinson (2008) 395) but exists in Arabic of which there is a German translation by Pfaff in CMG V.10.1 (unsatisfactory: Pormann (2008) 271 n. 70) and a forthcoming English translation from the Warwick Epidemics Project (above). In Pfaff's translation the commentary states emphatically that the passage of Hippocrates refers not to drugs in general but to purgative drugs:

Für mich ist dies nur ein Beispiel für Purgativmittel, wie ja auch einige diesen Abschnitt mit dem vorhergehenden verbinden. Ich sage also, dass er mit den Worten "was sie sind" nur die einfachen Arzneien meint, aus denen die Zusammengesetzten hergestellt werden, um damit den Leib nach oben und nach unten zu entleeren.

CMG 10.1 266.12-15

This is however a mistranslation and the Warwick Project (forthcoming) has "I will illustrate this for you for purgative drugs since some people have joined this lemma with the previous one. I say that by his words "what they are", he meant from which simple drugs a composite drug has to be compounded so that the bowels are emptied from above or below."—in other words Galen admits as a possibility that the passage refers to purgative drugs only. Littré translates "Nous connaissons la nature variée des médicaments évacuants" but justifies this by reference in the apparatus to "Le Comm. de Galien"-that is the spurious commentary printed in Kühn (we know that he refers to that commentary from e.g Littré Vol. 5 p. 100 = Epid. 2.3.1 where his note refers to the text at K XVIIa 388.10-16). For the importance, in Galen's eyes, of the distinction in Hippocrates between purgative and healing drugs see *Hipp.Epid*. XVIIb 336.9-12 = CMG V 10.2 344.19-22 καὶ γὰρ καθ' ὅλην τὴν οὐσίαν ἰδιότητες ήτοι οἰκεῖαι τοῖς σώμασιν ἡμῶν ἢ ἀλλότριαι κατὰ τέτταρας ὕλας εἰσὶ καθαρτικὰ φάρμακα καὶ τροφαὶ καὶ τρίτα πρὸς αὐτοῖς ἇ νῦν Ἱπποκράτης ὠνόμασε κακοῦργα καὶ τέταρτα τὰ τούτων ἰατρικά. Note that purgative drugs have the same taxonomic status as food, poisons and antidotes to poisons. The passage continues:

τεμνομένου δὲ τοῦ τρίτου γένους τῆς ὕλης εἴς τε τὰ δηλητήρια καλούμενα φάρμακα καὶ τοὺς ἰοὺς τῶν θηρίων, διττὴ καὶ τῶν ταῦτα θεραπευόντων ἐστὶν ἡ ὕλη. καλεῖται δὲ ἀλεξιφάρμακα μέν, ὅσα τοῖς δηλητηρίοις ἀνθίσταται, θηριακὰ δὲ ὅσα τὰς τῶν θηρίων ἰάται δήξεις. ἴσως δέ τις ἀξιώσει καὶ τὴν τῶν καθαιρόντων φαρμάκων ύλην ἐν τοῖς δηλητηρίοις περιέχεσθαι, διαφθείρει γὰρ ἡμᾶς καὶ ταῦτα πλείω τοῦ συμμέτρου δοθέντα.

Hipp.Epid. XVIIb 336.12-337.4 = CMG V 10.2 344.22-345.1

So having set up his quadripartite taxonomy he then suggests a possible merging of two heads, between purgatives and poisons, not between purgatives and antidotes. Cf. also *HVA* XV 540.4–541.8—purgative drugs are in fact poisons and only the taking of very small doses prevents them from killing us. ἐναντία γὰρ ἡ φύσις ἐστὶν ἀπάντων τῶν καθαιρόντων φαρμάκων ταῖς τῶν καθαιρομένων | σωμάτων καί, ὡς ἂν εἴποι τις, ὀλέθριὀς τε καὶ δηλητήριος αὐτῶν. *HVA* XV 540.11–541.2. The present passage in *Ther.Pis.* concerns curative drugs not purgative ones: the author of *Ther.Pis.* applies to curative drugs and to antidotes a saying of Hippocrates which on the view expressed elsewhere by Galen may apply to purgatives only. Unlike the passage discussed above (p. 33 ff.) Galen's commentary admits the possibility that the relevant saying of Hippocrates applies to drugs as a whole, not merely to purgatives.

f Doctrine—Philosophy—Asclepiades The most discussed passage in *Ther.Pis*. (with the possible exception of that relating to the incident involving Piso's son at—putatively—the Secular Games of 204) is the brusque dismissal of Asclepiades' theory of ὄγκοι καὶ πόροι as being nothing more than Epicurus' and Democritus' atomic theory with the names changed:

Εἰ μὲν γὰρ ἐξ ἀτόμου καὶ τοῦ κενοῦ κατὰ τὸν Ἐπικούρου τε καὶ Δημοκρίτου λόγον συνειστήκει τὰ πάντα, ἢ ἔκ τινων ὄγκων καὶ πόρων κατὰ τὸν ἰατρὸν Ἀσκληπιάδην· καὶ γὰρ οὕτος ἀλλάξας τὰ ὀνόματα μόνον καὶ ἀντὶ μὲν τῶν ἀτόμων τοὺς ὄγκους, ἀντὶ δὲ τοῦ κενοῦ τοὺς πόρους λέγων τὴν αὐτὴν ἐκείνοις τῶν ὄντων οὐσίαν εἶναι βουλόμενος·

p. 118. l. 16 ff.

This is an extreme statement. Galen often elsewhere groups atomic and  $\check{o}\gamma x \circ i x \alpha i \pi \acute{o}\rho \circ i$  theory (and as we shall see some other monist theories as well) as being functionally equivalent for the purposes of his argument, usually or invariably by virtue of their being monist. But he never elsewhere appears to go as far as to state that the belief systems are identical, and nor does any other source. Hence Vallance's statement (Vallance 1990, 37–38) that "Supporters of (p. 38) the thesis that Asclepiades was either an Epicurean, or at least heavily influenced by Epicurean atomism, invariably appeal to a chapter in the Galenic treatise De theriaca ad Pisonem". My purpose here is not to investigate the the-

ory of Asclepiades itself (as to which see most recently Leith 2009, 2012) but to consider how far the position stated in *Ther.Pis.* is inconsistent with what Galen says elsewhere in the corpus. Asclepiades' theory is characterised by a belief in ὄγχοι καὶ πόροι, masses and voids: the ὄγχοι are sometimes called ἄναρμοι ὄγκοι or ἄναρμα. The meaning of ἄναρμοι—literally "unjointed"—is unclear. The other important quality of the ὄγκοι is that they are fragile, θραυστά, whereas Epicurean atoms are ἄθραυστα. For an example of Galen's typical approach see *Hipp.Elem.* I: I 416 6–14:

ίδέα δὲ καὶ δυνάμει δύναιτ' ἄν τις ἕν εἶναι λέγειν τὰ πάντα, καθάπερ οἱ περὶ τὸν Ἐπίκουρόν τε καὶ Δημόκριτον τὰς ἀτόμους. ἐκ ταὐτοῦ δ' εἰσὶν αὐτοῖς χοροῦ καὶ οἱ τὰ ἐλάχιστα καὶ ἄναρμα καὶ ἀμερῆ τιθέμενοι στοιχεῖα. πρὸς τοὺς τοιούτους οῦν ἅπαντας ὁ Ἱπποκράτης κοινὴν τὴν ἀντιλογίαν ποιούμενος ἀποδείκνυσιν οὐχ ἕν εἶναι τὴν ἰδέαν τε καὶ τὴν δύναμιν τὸ στοιχεῖον οὐδὲ μνημονεύσας ἐκείνων, οῦ καὶ τῷ ἀριθμῷ τὸ ὂν ἕν εἶναί φασιν, ὡς ἐμπλήκτων τελέως.

Note that Galen is careful to portray the followers of Epicurus and Democritus on the one hand and the believers in other monist theories including  $åva\rho\mu\alpha$ on the other as distinct but similar: they are "from the same chorus"— $\dot{\epsilon}\varkappa$  $\tau\alpha\dot{\upsilon}\tau\sigma\hat{\upsilon}$  ...  $\chi \circ\rho\circ\hat{\upsilon}$ —before stating that Hippocrates' argument refutes all of them equally.

This is a recurring pattern: In HNH XV 36.12–37.1 εἰ ἐν ἦν ὁ ἀνθρωπος, οὐδέποτ' ἀν ἤλγεεν. ὅντινα λόγον ἔφην [sc. Hippocrates] ἐξελέγχειν καὶ τοὺς ἄτομα καὶ ἀναρμα καὶ ἐλάχιστα στοιχεῖα τιθεμένους. Ἐν γὰρ τῷ εἴδει καὶ κατὰ τούτους | ἐστὶ τὸ ὄντως ὄν.

San.Tu. I: VI 15.8-13;

συμμετρία γὰρ δή τις ἡ ὑγεία κατὰ πάσας ἐστὶ τὰς αἰρέσεις, ἀλλὰ καθ' ἡμᾶς μὲν ὑγροῦ καὶ ξηροῦ καὶ θερμοῦ καὶ ψυχροῦ, κατ' ἄλλους δὲ ὄγκων καὶ πόρων, κατ' ἄλλους δὲ ἀτόμων ἢ ἀνάρμων ἢ ἀμερῶν ἢ ὁμοιομερῶν ἢ ἀνομοιομερῶν ἢ ὅτου δὴ τῶν πρώτων στοιχείων, ἀλλὰ κατὰ πάντας γε διὰ τὴν συμμετρίαν αὐτῶν ἐνεργοῦμεν τοῖς μορίοις.

Compare Sextus Empiricus *Adversus mathematicos*. 10.318 for a similar survey of monist theories:

έξ ἀπείρων δ' ἐδόξασαν τὴν τῶν πραγμάτων γένεσιν οἱ περὶ Ἀναξαγόραν τὸν Κλαζομένιον καὶ Δημόκριτον καὶ Ἐπίκουρον καὶ ἄλλοι παμπληθεῖς, ἀλλ' ὁ μὲν Ἀναξαγόρας ἐξ ὁμοίων τοῖς γεννωμένοις, οἱ δὲ περὶ τὸν Δημόκριτον καὶ Ἐπίκουρον ἐξ ἀνομοίων τε καὶ ἀπαθῶν, τουτέστι τῶν ἀτόμων, οἱ δὲ περὶ τὸν Ποντικὸν Ἡρακλείδην καὶ Ἀσκληπιάδην ἐξ ἀνομοίων μέν, παθητῶν δέ, καθάπερ τῶν ἀνάρμων ὄγκων.

There are multitudes  $(\pi\alpha\mu\pi\lambda\eta\theta\epsilon\hat{\varsigma})$  of infinite particle theorists of whom the most notable are the followers of Anaxagoras and Democritus and Epicurus, but they are subdivided into distinguishable subsets, and the similarity and distinction between Epicurus (and others) and Asclepiades (and others) is expressly stated: both believe in infinite particles, but one says they are  $\dot{\alpha}\pi\alpha\theta\hat{\omega}\nu$ , the other that they are  $\pi\alpha\theta\eta\tau\hat{\omega}\nu$ .

And there are other examples of Galen following the same pattern of argument—i.e. the competing monist creeds are set out disjunctively and the present argument is then stated to apply to all of them (but by virtue of relevant similarities between the creeds, not of identity between them).

So Galen is scrupulous in these passages to avoid the assertion that monist theories are indistinguishable from one another. The assertion in *Ther.Pis.* of identity does make that assertion. The question is then whether he ever positively states that Epicurean atomism differs from Asclepiadean theory. An extended passage in *Nat.Fac.* I: II 44.13–53.9 contrasts Epicurus' and Asclepiades' very different views on the question whether, and how, a lodestone attracts iron but this does not depend on any perceived difference between their underlying philosophies of matter—on the contrary these are very similar—'Eπίχουρος μέν οὖν καίτοι παραπλησίοις Ἀσκληπιάδῃ στοιχείοις πρὸς τὴν φυσιολογίαν χρώμενος ὅμως ὁμολογεῖ, πρὸς μἐν τῆς ἡρακλείας λίθου τὸν σίδηρον ἕλχεσθαι (*Nat.Fac.* I: II 45.4–7)—the difference, says Galen, lies in the way in which the principles are applied. Note that the tone of the attack on Asclepiades is viciously satirical and Galen's avoidance of saying the belief systems are identical in such a heated context, and when the claim would add bite to the satire, is strong evidence that he really believes them to be non-identical.

There is no passage as far as I am aware where Galen positively states a substantive difference between the two belief systems. We can find passages in separate works which taken together amount to positive assertions that the systems differ. Asclepiades'  $\delta\gamma\kappa\sigma\iota$  are frangible things,  $\theta\rho\alpha\upsilon\sigma\tau\dot{\alpha}$  (Vallance 1990, 10–11). What this means and why the  $\delta\gamma\kappa\sigma\iota$  if fragile have a better claim to be the primary constituents of matter than their fragments are extremely difficult questions; for present purposes however the issue is whether Galen recognised that  $\delta\gamma\kappa\sigma\iota$  are fragile and recognised that Epicurean atoms are not. On the latter point we could if necessary take it as read that he accepted the infrangibility of atoms under Epicurus' system, given the fundamentality of this point to Epicurean physics (and of course given the etymology of  $\alpha\tau\sigma\mu\sigma\varsigma$ ). We do however have an unambiguous statement of the point concerning Epicurus

in *Hipp.Elem*. I: I 418.15–17: ἀπαθῆ δ' ὑποτίθενται τὰ σώματ' εἶναι τὰ πρῶτά τινες μὲν αὐτῶν ὑπὸ σκληρότητος ἄθραυστα, καθάπερ οἱ περὶ τὸν Ἐπίκουρον, and of the point concerning Asclepiadean ὄγκοι in *CAM*: I 249.11–15 ὁπότ' οὖν οὐδ' ἐν τοῖς παθητικοῖς ἐναργῶς σώμασιν οὕθ' ἡ σύνοδος, οὕθ' ἡ ἄφοδος ὀδύνην ἐργάζεται, σχολῆ γε ἂν ἐν τοῖς ἀπαθέσιν ἐργάσαιτο. οὐ μὴν οὐδὲ τὸ ἀναρμον τὸ Ἀσκληπιάδου θραυστὸν ὄν ὀδυνήσεται θραυόμενον, ἀναίσθητον γάρ ἐστιν.

The point in this case appears to be that combining and uncombining sensitive body parts (joining and separating one's fingers is the example given) is painless, and so *a fortiori* is combining and uncombining non-sensitive particles. That covers both atoms and ävapµa and the only case which remains to be covered is the breakage of ävapµa which apparently does not constitute the uncombining of separate particles. To exclude the possibility of this entailing pain an appeal must be made to the separate point that they are ἀναίσθητα. Compare *Morb.Diff*. VI 839.16–840.5 οὐx οὖν ἕν ἐστι τὸ τῶν ζώων σῶµa, xαθάπερ ἢ ἄτοµoς ἡ Ἐπικούρειος, ἢ τῶν ἀνάρµων τι τῶν Ἀσκληπιάδου· σύνθετον ἀρα πάντως. ἀλλ' εἰ μὲν ἐξ ἀτόµων, ἢ ἀνάρµων, ἢ ὅλως ἐξ ἀπαθῶν τινων σύγκειται, τὸ µâλλόν τε καὶ ἦττον ἐν τῷ ποιῷ τῆς συνθέσεως ἕξει δίκην οἰκίας ἐξ ἀπαθῶν μὲν λίθων συγκειµένης, οὐ μὴν ἐν τῇ συνθέσει γε πάντῃ κατορθουµένης.

Atoms and  $d\nu d\rho\mu \alpha$  are here subsumed under  $d\pi\alpha\theta\omega\nu$   $\tau$   $t\nu\omega\nu$ —contrary to the statement of Sextus Empiricus Adversus mathematicos. 10.318 (above) that atoms are ἀπαθή while ἀνάρμα are παθητά. But Galen clearly takes παθητά and άπαθή to refer to the capacity to feel sensation in *CAM*: I 249.11–15 because the a fortiori argument from fingers makes much more sense if fingers are offered as an example of sensitive living flesh than if they are merely an example of something larger than an individual atom. The particles are clearly  $d\pi\alpha\theta\hat{\eta}$  in this sense. Galen is therefore not really contradicting the distinction made by SE between παθητά ἀνάρμα and ἀπαθή atoms. The distinction he does recognise is between frangible ἀνάρμα and infrangible atoms (which may in fact be the same distinction as that between  $\pi\alpha\theta\eta\tau\dot{\alpha}$  and  $\dot{\alpha}\pi\alpha\theta\dot{\eta}$  in SE: (Leith 2009, 297– 299)). There is strong evidence that Galen himself believed in this equivalence: Hipp.Elem. I: Ι 418.15-419.2 ἀπαθή δ' ὑποτίθενται τὰ σώματ' εἶναι τὰ πρῶτά τινες μὲν αὐτῶν ὑπὸ σκληρότητος ἄθραυστα, καθάπερ οἱ περὶ τὸν Ἐπίκουρον, ἔνιοι δ' ὑπὸ σμικρότητος άδιαίρετα, καθάπερ οἱ περὶ τὸν Λεύκιππον, ἀλλ' οὐδ'ἀλλοιοῦσθαι κατά τι δυνάμενα ταύτας δὴ τὰς ἀλλοιώσεις—primary particles are ἀπαθῆ because they are hard and therefore infrangible (Epicurus) or small and therefore impossible to subdivide (Leucippus).

Clearly therefore the claim in *Ther.Pis.* that Asclepiades' and Epicurus' theories of matter are identical is not, as it has been taken to be, an express statement of a claim made implicitly elsewhere in Galen; it is inconsistent with Galen's usual approach of identifying the two theories as distinct even when, as is usually the case, they are for his purposes functionally identical, and it is contradicted by his recognition of the fact that atoms are  $\check{\alpha}\theta\rho\alpha\nu\sigma\tau\alpha$  while Asclepiadean particles are  $\theta\rho\alpha\nu\sigma\tau\dot{\alpha}$ . Compare Galen's approach to the nature of Asclepiades' system when he is discussing voids as opposed to particles. In the examples given by Leith (2012, 166–167) when Galen is talking about voids he is happy to talk about the doctrine of Asclepiades and Epicurus in terms implying that there is only one doctrine involved:

τὸ δὲ κενὰς εἶναί τινας χώρας ἢ κατὰ τὸ ὕδωρ ἢ κατὰ τὸν ἀέρα τῆ μὲν Ἐπικούρου τε καὶ ἘΑσκληπιάδου δόξῃ περὶ τῶν στοιχείων ἀκόλουθόν ἐστι. *Hipp.Epid*. IV: XVIIb 162.7–9

ἐπισταμένων ἡμῶν δηλονότι καὶ μεμνημένων ἀεὶ πῶς λέγεται χώρα κενὴ πρὸς τῶν ἡνῶσθαι φασκόντων τὴν οὐσίαν, ὅτι μὴ καθάπερ Ἐπικούρῳ καὶ ἘΑσκληπιἀδῃ δοκεῖ, ἀλλ᾽ ἔστιν ἀέρος πλήρης ἐν ἅπασι τοῖς ἀραιοῖς σώμασιν ἡ κενὴ χώρα. SMT I: XI 405.13–17

This is understandable because (to put it only slightly simplistically) there are more ways of being a particle than there are of being a void. These references to Epicurus' and Asclepiades void theory in the singular demonstrate that when Galen believes the theories of the two men to be indistinguishable he is prepared to say so. By contrast when he refers to particle theories he refers to them as if they were distinct even if the distinction is irrelevant because what he is focussing on is a shared characteristic of, for instance, monism. The extreme statement of the identity of Asclepiades' theory with that of Democritus and Epicurus in *Ther.Pis.* is therefore at odds with what we find elsewhere in Galen.

g Doctrine—Philosophy—λόγος and πεῖρα

The relative importance of  $\lambda \delta \gamma \circ \varsigma$  on the one hand and  $\pi \epsilon \hat{\iota} \rho \alpha$  on the other in pharmacology and in medicine and science generally is a recurring theme in Galen's work. In addition to the fundamental theoretical importance of the question in these contexts it also has importance for Galen because of his interest in defining and distinguishing between current medical sects: as a rule of thumb, dogmatists are doctors who privilege  $\lambda \delta \gamma \circ \varsigma$  over  $\pi \epsilon \hat{\iota} \rho \alpha$ , and empiricists are doctors who privilege  $\pi \epsilon \hat{\iota} \rho \alpha$  over  $\lambda \delta \gamma \circ \varsigma$ . Galen's own position in the debate is complex. He represents the empiricists as even rejecting many forms of practical investigation as being too theoretical for their purposes—for instance anatomy is embraced by dogmatists and rejected by empiricists according to *Sect.Int.* I 77.3–7 on the grounds that it finds out nothing and if it did, what it found out would be unnecessary for the art of medicine:  $\tau \hat{\omega} \nu \mu \hat{\varepsilon} \nu$  [sc. the ratio-

nalists] τὴν ἀνατομὴν καὶ τὴν ἐνδειξιν καὶ τὴν διαλεκτικὴν θεωρίαν ἐπαινούντων· ὄργανα γὰρ αὑτοῖς ταῦτα τῶν ἀδήλων θηρατικά· τῶν δ' ἐμπειρικῶν μήθ' εὑρίσκειν τι τὴν ἀνατομὴν συγχωρούντων μήτ', εἰ καὶ εὑρίσκοιτ', ἀναγκαῖον εἰς τὴν τέχνην εἶναι τοῦτο. This would appear to put Galen as an enthusiast for anatomy firmly in the dogmatist camp. On the other hand there is much in the Hippocratic corpus which takes a strongly empiricist approach: see the robust assertions in *De priscina medicina* 1.1–8, *De natura hominis* 1.1–25 of the irrelevance of theories of the fundamental nature of matter to the art of medicine. In addition to these express rejections of fundamental theories much of the corpus, in particular the *Epidemics* implicitly endorses the empiricist stance by rigidly excluding any element of theory from its content. Galen's approach is therefore even-handed: despite their differences members of both sects, he says at *Sect.Int*. I 79.5–8, if properly trained apply the same remedies to the same diseases:

τοιαῦτα μυρία πρὸς ἀλλήλους ἀμφισβητοῦσιν ἐμπειρικοί τε καὶ δογματικοὶ τὴν αὐτὴν θεραπείαν ἐπὶ τῶν αὐτῶν παθῶν ποιούμενοι, ὅσοι γε νόμῷ καθ' ἑκατέραν τὴν αἴρεσιν ἤσκηνται.

In the specific context of pharmacology Galen's general approach appears to be in line with that outlined above: that is, he steers a middle course between dogmatism and empiricism. For a statement apparently giving equal weight to both see *Comp. Med. Gen.* VI: XIII 886.17–887.6:

Ότι τῶν βοηθημάτων ἔνια μὲν ὁ λόγος εὑρίσκει μόνος, ἔνια δὲ ἡ πεῖρα, καὶ αὕτη τοῦ λόγου μὴ χρήζουσα, τινὰ δ' ἀμφοῖν ἀλλήλοις συνεργούντων δεῖται, πολλάκις ὑμῖν ἐπιδέδεικται, καὶ πρός γε τούτοις ὅτι τὰ διὰ λόγου καὶ πείρας εὑρισκόμενα στοχαστικῃ μὲν ὁδῷ χρῆται πρὸς τὴν τῶν ζητουμένων εὕρεσιν, ἐλπισθέντα δὲ τῷ λόγῳ βεβαιοῦται τῇ πείρą.

However the passage then continues (887.6-12)

καὶ μέντοι καὶ ὡς τῆς στοχαστικῆς ἐλπίδος οὐκ ὀλίγη ἐστὶν ἐν τῷ μάλλόν τε καὶ ἦττον ἡ διαφορὰ, καθάπερ καὶ καθ' ὅλον τὸν βίον. οὐ γὰρ ὁμοίως ἐλπίζομεν ὑετὸν ἔσεσθαι κατά γε τὰς χειμερινὰς τροπὰς καὶ τὴν τοῦ κυνὸς ἐπιτολήν. ἐν μὲν γὰρ ταῖς χειμεριναῖς τροπαῖς σπανιάκις οὐ γίνεται, κατὰ δὲ τὴν τοῦ κυνὸς ἐπιτολὴν σπανιάκις γίνεται.

So the discoveries made by λόγος alone (ἔνια μὲν ὁ λόγος εὑρίσκει μόνος) have the status of expectations and as such are always subject to verification by πεῖρα because of the unpredictability inherent in life in general (καθ' ὅλον τὸν βίον). The converse is not stated here nor, so far as I can tell, elsewhere in Galen, that the discoveries of πεῖρα require further validation by λόγος to be fully reliable.

Other passages in Galen occasionally show him polemically on the side of  $\pi\epsilon$ î $\rho\alpha$  against  $\lambda \delta \gamma \circ \varsigma$ : *At.Bil.* V 144.7–9:

Περὶ δὲ μελαίνης χολῆς τὰ διὰ μακρᾶς πείρας μοι βεβαίως ἐγνωσμένα προσθήσω νῦν χρήσιμα ἐσόμενα ἐκείνοις, ὅσοι τῆς ἰατρικῆς τέχνης οὐ τοὺς σοφιστικοὺς λόγους, ἀλλὰ τὰ ἔργα σπουδάζουσι.

This passage introduces an attack on the Asclepiadean view also attacked in *Ther.Pis.* that specific drugs do not have a specific  $\delta i \nu \alpha \mu \mu \zeta$  to draw one specific humour from the body (p. 78. l. 10 ff.)

In contrast to the measured approach to the competing claims of  $\pi\epsilon$ îρα and λόγος, with a bias in favour of  $\pi\epsilon$ îρα in a pharmacological context (*Comp. Med. Gen.* VI: XIII 886.17–887.6 above) *Ther.Pis.* prefers ὁ λόγος αὐτὸς πρῶτος καὶ μόνος (p. 76 l. 4) to πεῖρα to the extent that πεῖρα is not to be consulted at all, except in the case of matters which λόγος "cannot discover". The passage goes on to specify aspects of drugs which must be discovered by πεῖρα rather than λόγος; nevertheless the privileging of λόγος is unusual in the contet of Galen's pharmacological works.

# h Style and Language

The dedication of the work to Piso calls into question the place of dedications in Galen's work. This in turn raises the wider question of his motives for writing generally given his insistence in several passages that he writes for and at the request of friends and acquaintances.

There is a general statement in *Hipp.Epid.* to the effect that Galen's sole motive in writing is the request of friends or acquaintances, especially those who are about to spend some time abroad:

Ἐμοὶ μὲν οὐδ' ἄλλο τι βιβλίον ἐγράφη χωρὶς τοῦ δεηθῆναί τινας ἢ φίλους ἢ ἑταίρους καὶ μάλιστα τοὺς εἰς ἀποδημίαν μακροτέραν στελλομένους, ἀξιώσαντας ἔχειν ὑπόμνημα τῶν ὑπ' ἐμοῦ ῥηθέντων αὐτοῖς ἢ δειχθέντων ἐν ταῖς τῶν ζώων ἀνατομαῖς κἀπὶ ⟨ταῖς ἐπισκέψεσι⟩ τῶν νοσούντων. *Hipp.Epid*. III: XVIIa 576.1–5

This is as we shall see an oversimplification but much in Galen's work is consistent with the statement. Of the explicitly dedicated works (by which I mean those in which Galen addresses in the vocative a named listener) the major-

ity conform to this pattern. In nine cases out of thirteen the addressee is said to "desire" the treatise or information on the subject-matter, e.g. βουληθέντι σοι *Ven.Art.* II: 779.2, *Gloss.* XIX 62.2 (if *Gloss.* is by Galen); ὀρεγόμενος *CAM* I 224.2; or to ask for it e.g. ἡξίωσας *MMG* I: XI 1.9, ἀξιοῦτε *MM* VII: X 458.7, παρακαλοῦσι *MM* I: X 1.2. As a slight variation on this theme *Thras.* is presented as an answer to a problem propounded by the addressee—περὶ τοῦ προβληθέντος ὑπὸ σοῦ ζητήματος *Thras.* V 806.2. In another variation *Lib.Prop.* is written in response to some advice from the addressee: Ἔργῷ φανερὰ γέγονεν ἡ συμβουλή σου, κράτιστε Βάσσε, περὶ τῆς γραφῆς τῶν ὑπ' ἐμοῦ γεγονότων βιβλίων. (*Lib.Prop.* XIX 8.2–4) *MM* furnishes an interesting doublet in that it has a new dedication at the beginning of book VII. The first book is dedicated to Hieron at the request of him and some other companions of Galen and/or Hieron: Ἐπειδὴ καὶ σύ με πολλάκις, ὡ Ἱέρων φίλτατε, καὶ ἄλλοι τινὲς νῦν ἑταῖροι παρακαλοῦσι θεραπευτικὴν μέθοδον αὐτοῖς γράψαι (*MM* I: X 1–3) But at the beginning of book VII there is a new dedication to Eugenianus:

Τὴν θεραπευτικὴν μέθοδον, ὦ Εὐγενιανὲ φίλτατε, πάλαι μὲν ὑπηρξάμην γράφειν Ἱέρωνι χαριζόμενος, ἐπεὶ δὲ ἐξαίφνης ἐκεῖνος ἀποδημίαν μακρὰν ἀναγκασθεὶς στείλασθαι, μετ' οὐ πολὺν χρόνον ἠγγέλθη τεθνεὼς, ἐγκατέλιπον κἀγὼ τὴν γραφήν.

MM VII: X 456.1-5

Note that the  $\dot{\alpha}\pi\sigma\delta\eta\mu$ ( $\alpha$   $\mu\alpha\kappa\rho\dot{\alpha}$  here brings writing to a temporary halt rather than catalysing it in the first place. Galen then goes on to explain that he writes not for glory but for one of two reasons only—to satisfy the requests of friends, and as an exercise for himself:

οἶσθα γὰρ ὡς οὔτε ταύτην οὔτε ἄλλην τινὰ πραγματείαν ἔγραψα τῆς παρὰ τοῖς πολλοῖς ἐφιέμενος δόξης, ἀλλ' ἤτοι φίλοις χαριζόμενος ἢ γυμνάζων ἐμαυτὸν MM VII: X 456.1–5

This adds another motive or Galen to write in addition to that put forward in the Epidemics.

Galen's work on his own books, *Lib.Prop.*, on the whole confirms in the books it describes this pattern of writing for friends—especially friends contemplating an  $\dot{\alpha}\pi\sigma\delta\eta\mu\dot{\alpha}$ —and as an exercise for himself. So we learn that *PHP* books 1–6 and the first book of *UP* were written at the request of Boethus and taken by him on an  $\dot{\alpha}\pi\sigma\delta\eta\mu\dot{\alpha}$  as proconsul of Palestine (*Lib.Prop.* XIX 15.18–16.2). It follows from this that we cannot tell from a work of Galen's whether it was written in response to a personal request or not, because there is no dedication in *UP*;

we do not know the situation for *PHP* because the first book is incomplete. *AA* tells us that a previous work on anatomy was also dedicated to Boethus on the same occasion:

Φλάβιος Βοηθὸς ἀνὴρ ὕπατος Ῥωμαίων, ἐξιὼν ἐκ Ῥώμης εἰς τὴν ἑαυτοῦ πατρίδα Πτολεμαΐδα, παρεκάλεσέ με τὰς ἐγχειρήσεις ἐκείνας αὐτῷ γράφειν *AA* I: II 215.5–7

There is some ambiguity in a passage in *Praen*. as to Galen's claimed motivation for writing. While Marcus Aurelius was away at the Germanic wars he wrote many treatises and gave them away:

παντὶ τούτῳ τῷ χρόνῳ πολλὰς πραγματείας ἔγραψα φιλοσόφους τε καὶ ἰατρικὰς, ἂς ὑποστρέψαντος τοῦ βασιλέως εἰς τὴν Ῥώμην αἰτήσασι τοῖς φίλοις ἔδωκα, παρὰ μόνοις ἐκείνοις ἐλπίσας αὐτὰς ἔσεσθαι.

Praen. XIV 650.16-651.1

The Kühn translation has "amicis petentibus exhibui;" Nutton translates "I gave to my friends who asked for them". "I gave to my friends who had asked for them" is probably a better translation—i.e. it is more consistent with what Galen says elsewhere that the writings were as it were "commissioned" in the first place by the friends referred to than that they were written first and then given to friends who had come to hear of their existence.

Another distinct type of "dedication" in Galen's work is the hostile addressing of a treatise to a named opponent. For example *Praen*. XIV 37.19–38.2

ἔστι δὲ καὶ τὰ περὶ Ἐρασιστράτου ἀνατομῆς τρία βιβλία καὶ περὶ φλεβοτομίας δύο, τό τε πρὸς Ἐρασίστρατον αὐτὸν γεγραμμένον καὶ τὸ πρὸς (τοὺς) ἐν Ῥώμῃ Ἐρασιστρατείους·

Neither work contains a dedication or direct address to the addressee (though a direct address to a dead writer is possible in Galen; cf. for example Aριστότελες  $\varphi$ ίλτατε *Sem.* I: IV 530.4 and elsewhere).

So the two basic patterns of "addressed" work in Galen are those written on request for friends and pupils, and—more rarely—those written "against" an opponent (contemporary or not). Works which are not explicitly dedicated are on Galen's account nonetheless usually written on request unless they are "exercises" for Galen himself. Works written on request are geared to the precise needs and level of knowledge of the requesting party: γεγραμμένων οὖν, ὡς ἔφην, οὐ πρὸς ἔκδοσιν αὐτῶν ἀλλὰ κατὰ τὴν τῶν δεηθέντων ἕξιν τε καὶ χρείαν εἰκὸς δήπου τὰ μὲν ἐκτετάσθαι, τὰ δὲ συνεστάλθαι καὶ τὴν ἑρμηνείαν αὐτήν τε τῶν θεωρημάτων τὴν διδασκαλίαν ἢ τελείαν ὑπάρχειν ἢ ἐλλιπῆ.

Lib.Prop. XIX 10.15-11.1

One slight anomaly is in Puls.:

Όσα τοῖς εἰσαγομένοις, φίλτατε Τεῦθρα, χρήσιμον ἐπίστασθαι περὶ σφυγμῶν, ἐνταῦθα λεχθήσεται. τὴν δ' ὅλην ὑπὲρ αὐτῶν τέχνην ἑτέρωθι γεγραμμένην ἔχεις *Puls*. VIII 453.1–3

where Teuthras, the dedicatee of *On Pulses for Beginners* apparently already has copies of Galen's full works on the subject.

The works which do not completely fit the picture created in *Lib.Prop*. are first what might be called the autobiographical books-Lib.Prop., Ord. Lib.Prop., Praen.; secondly Puer.Epil. and thirdly Ther.Pis. Of these, Lib.Prop. and Ord. Lib.Prop. conform to pattern in that they are both addressed to a named dedicatee who in both cases has asked for the book to be written; Bassus has advised that Lib.Prop. should be written, Eugenianus has asked for (ήξιωκέναι Ord. Lib.Prop., XIX 49.2) a book giving the correct order of Galen's writings. Puer.Epil. is interesting in that it purports to respond to an unusually specific requirement. Galen has been asked by an Athenian, Caecilianus, to give him ὑποθήκαι, medical advice, about the management of his son's epilepsy. Galen starts by stating his unwillingness to provide such advice because Dionysius, apparently another doctor retained by and traveling with Caecilianus and his son, is better placed to give such advice since he will be with them on the sea-voyage back to Athens and can give his own ὑποθήκαι when he parts with them. (Puer.Epil. XI 357.2-7). Galen has never actually seen the patient, does not know what he was like before the fits started or what he is like now and knows only that Caecilianus has told him that he suffers from fits. (Puer.Epil. XI 357.7-12). What changes Galen's mind is an accusation by Caecilianus that he is "running away from" the request to write a treatise, because Caecilianus wrongly believes Galen is being self-deprecating (ὀλιγωροῦντά) rather than speaking the truth when he says he is ill-equipped to give the advice:

ἐπεὶ δὲ ὀλιγωροῦντά με μαλλον ἢ ἀληθεύοντα νομίζεις ἀποδιδράσκειν τὴν γραφήν, ὃ μηδέποτε πρότερον ἔπραξα, τοῦτο νῦν ὑπομένω πραξαί σοι χαριζόμενος ὑποθήκας τινὰς γράψαι θεραπείας ἐπιλήπτου παιδός, ἐν αἶς ἀνάγκη τι καὶ παρακούσαι τὸν ἰδιώτην καὶ σφαλῆναι περὶ τὸ μέτρον ἢ τὸν καιρὸν τῆς χρήσεως. ἀποδέδεικται γὰρ ἡμῖν ἐν ἑτέροις ὡς οὐκ ἐνδέχεται χωρὶς τοῦ μέθοδόν τινα ἐκμαθεῖν θεραπευτικὴν ἰάσασθαί τι καλῶς οὐδὲ τῶν σμικροτάτων νοσημάτων μή τί γε τῶν οὕτω μεγάλων ἡλίκον καὶ τὸ τῆς ἐπιληψίας ἐστί.

Puer.Epil. XI 358.2–13

So Galen gives the advice in response to this challenge despite his objection that he has not seen the patient while another doctor has and despite the further objections that Caecilianus is a layman and ill-equipped to understand the advice given to him. He will inevitably blunder over dosage and time of administration since (as Galen has shown elsewhere) it is necessary to learn thoroughly the whole therapeutic method in order to cure even a simple disease, let alone a complex one like epilepsy. Asking Galen to advise on epilepsy only is like asking Pheidias after he completed the statue of Athene to sculpt individually a finger, an arm, a foot, a nose, an ear and so on. Galen's therapeutic writings are explicitly equated to "a kind of statue", and are not likely to be of help to laymen or even to an average doctor:

έμοὶ γὰρ οἶον ἄγαλμά τι γεγράφθαι νομίζω τὴν θεραπευτικὴν μέθοδον ἐν ὑπομνήμασι πλείοσιν οὐχ ὅπως ἰδιώτας ὠφελεῖν δυναμένην ἀλλ' οὐδὲ τοὺς ἐπιτυχόντας τῶν ἰατρῶν. *Puer.Epil.* XI 359.9–13

The treatise then gives advice on diet, exercise, massage and medication for the epileptic boy, explicitly repeating in the final section (on medication) the point about the inadequacy of prescriptions given to a layman:

όθεν οὐδ' εἰ μυρίας τις ὑποθήκας γράφοι μήπω κατὰ τὴν θεραπευτικὴν μέθοδον ήσκημένωι κἀκεῖθεν τετεχνημένωι τὴν ψυχήν, ἱκανὸν ἂν ἐργάσαιτο θεραπευτὴν τὸν τοιοῦτον οὐχ ὅπως οὐ μεγίστων νοσημάτων ἀλλ' οὐδὲ τῶν σμικροτάτων οὐδενός ... καί μοι τετελεύτηκεν ὁ λόγος εἰς ταὐτόν, ὅθεν περ καὶ ἤρξατο, μηδὲ τοὐλάχιστον ἐπιδείξασθαι δύνασθαι καλῶς τὸν ἰδιώτην μεταχειρίζεσθαι ἀλλ' ἢ χρήιζειν ἐπιστατοῦντος τοῦ τεχνίτου.

Puer.Epil. XI 376.4-8, 17-21

Despite this warning Galen goes on to describe how to make "the medicine made of squills" ( $\tau[\delta]\delta \delta$  dià tŷς σχίλλης φάρμαχ[ον] *Puer.Epil.* XI 374.8) because Caecilianus has requested it:

ἐπεὶ δὲ οἱ πολλοὶ φαύλως τὸν χυλὸν τῆς σκίλλης ἐκλαμβάνουσιν, ἀξιώσαντί σοι [τοῦτο] μαθεῖν, ὅπως ἐγὼ τοῦτο πράττω, προσθήσω τῷ λόγῳ τὴν σκευασίαν αὐτοῦ.

Puer.Epil. XI 377.1-4

We can see here some similarities with *Ther.Pis.*, notably the imaginative realisation of Galen's reason for addressing of the treatise the dedicatee which goes beyond the mere fact of the dedicatee having asked for it. In the case of *Puer.Epil.* the reason for writing the treatise is primarily therapeutic and practical (the need to treat Caecilianus' son). In *Ther.Pis.* the primary reason is Piso's interest in medicine:

οὐδὲ περὶ τὸ φάρμακον τοῦτο τὴν θηριακὴν ἔσχες ἀμελῶς, ἀλλ' ἐσπούδασας αὐτοῦ εἰδέναι τήν τε δύναμιν καὶ τὴν κρᾶσιν, τόν τε καιρὸν καὶ τὸ μέτρον τῆς χρήσεως ἀκριβῶς ἐκμαθεῖν.

p. 68. l. 23

There are references to Piso's son's need for medical care but that has now been resolved. *Puer.Epil.* is unique in the respect of being written in the context of a specific medical case. Where the two treatises diverge most noticeably is in the matter of giving therapeutic advice to a layman. *Puer.Epil.* as noted above states Galen's very strong objection to this: a layman is bound to err as to dosage and time of administration ( $\sigma\varphi\alpha\lambda\hat{\eta}\nu\alpha$  ( $\pi\epsilon\rho$ ) to  $\mu\epsilon\tau\rho\nu$ )  $\eta$  to  $\nu\alpha$  ( $\nu\eta$ )  $\chi\alpha$  ( $\mu\epsilon\tau\rho\nu$ )  $\chi\alpha$  ( $\nu\eta$ )  $\chi\alpha$  ( $\mu\epsilon\tau\rho\nu$ )  $\chi\alpha$  ( $\mu\epsilon\tau\rho\nu$ )  $\chi\alpha$  ( $\mu\epsilon\tau\rho\nu$ ) ( $\mu\epsilon\tau\rho\nu$ 

θαυμαζέτω δέ τις ἐκεῖνο, πῶς ἐν οἶς μὲν αὐτὸς εἴρηκεν, εἰ Χρυσίππειόν τι διδάσκει, τολμηρὸς ἱκανῶς ἐστι καὶ οὐδὲν ἄρα τηνικαῦτ' αὐτὸν, οὐκ ὀξύτης καιροῦ κατέπληξεν, οὐ τοῦ μέτρου τὸ δύσληπτον, οὐ τοῦ πάθους τὸ κινδυνῶδες, ἀλλ' οὕτως οἴεται σαφῶς τε ἅμα καὶ ἀκριβῶς αὐτό τε τὸ μέτρον καὶ τὸν καιρὸν ἐκδιδάσκειν, ὥστ' οὐ μόνον ἰατροῖς, ἀλλ' ἤδη καὶ ἰδιώταις χρησίμους εἶναι τὰς ὑποθήκας νομίζει.

*Puer.Epil.* presents a credible scenario for Galen to overcome his objections and provide therapeutic advice, with express provisoes, to a layman. The reason given in *Ther.Pis.* is as follows:

καὶ γὰρ εὔχρηστον νομίζω σκευάσαι σοι αὐτὴν τῷ λόγῳ, ἵνα ἤν ποτε καὶ μὴ παρόντος ἰατροῦ εὐφυὴς ὢν σκευάζειν αὐτὴν ἐθέλῃς, ὡς ἄριστα σκευάσῃς, διδάσκαλον τῆς σκευασίας ἔχων αὐτὸν τὸν λόγον.

p. 130. l. 12

The reason given seems far-fetched: it is difficult to imagine a setting where the ingredients for theriac are all readily available (presumably Rome, Alexandria, perhaps Crete) but no doctor to make them up into theriac, and where it is not worth sending for existing theriac from elsewhere rather than make up a fresh batch and wait for the absolute minimum two months which must elapse for it to be useable (see *Ant*. I: XIV 65.14–65.3: καὶ ἡμίσεος, ἐν ῷ δένδρον ὅλον ἦν κιννα-μώμου τοῦ πρώτου γένους, ἐξ αὐτοῦ σύνθεσίν τινα τῷ αὐτοκράτορι Μάρκῳ Ἀντωνίνῷ ποιησάμενος, ὅλην εὖρον τὴν ἀντίδοτον ἰκανῶς τῶν ἄλλων ὑπερέχουσαν, ὥστε γευσάμενον αὐτῆς τὸν αὐτοκράτορα μὴ περιμεῖναι χρόνον, ὥσπερ ἐπὶ τῶν ἄλλων, ἐν ῷ μεταξὺ γενομένων.) Such a setting would presumably constitute an ἀποδημία and to that extent the advice to Piso fits a Galenic pattern. However the ἀποδημία is not stated as the main motivation for the work and there is no indication in other treatises that the point of the dedicatee having the work on his ἀποδημία is as a practical medical manual.

The other dedicated treatise which is *sui generis* is *On Prognosis* dedicated to Ἐπιγένης who atypically is addressed throughout the piece, seven times by name and more frequently as συ or without a name, e.g. ὡς οἶσθα καὶ αὐτὸς (XIV 609.1), and who may or may not be the Ἐπιγένης to whom *On Exercise with the Small Ball* is also addressed.

On Prognosis starts with a rhetorical flourish—

Ὅσον μὲν ἐπὶ τοῖς πολλοῖς τῶν ἰατρῶν, ὦ Ἐπίγενες, ἀδύνατόν ἐστι προγινώσκειν τὰ τοῖς κάμνουσιν ἐσόμενα καθ' ἑκάστην νόσον

and with no trace of the usual suggestion that the dedicatee has requested the work. Later addresses to Epigenes in the body of the work are essentially invocations of him as a witness to Galen's triumphs, e.g. συνηκολούθησαν δ' αὐτῷ καὶ οἱ κατὰ τὴν ὁδὸν ἀπαντῶντες, ἐν οἶς ἦσθα καὶ σύ (633.9–10), καὶ εἰπὼν τῷ Πειθολάῳ μετὰ τὸ πιεῖν ὡς ἰατρὸν ἔχων ἕνα καὶ τοῦτον ἐλεύθερον πάνυ διετέλει τε περὶ ἐμοῦ λέγων ἀεὶ, καθάπερ οἶσθα καὶ σὺ, τῶν μὲν ἰατρῶν πρῶτον εἶναι, τῶν δὲ φιλοσόφων μόνον· (660.9–12) or to general statements of fact of the kind Φλάβιος Βοηθὸς ὑπατικὸς ἀνὴρ, ὅπως μὲν ἦν φιλόκαλός τε καὶ φιλομαθὴς οἶσθα καὶ σύ. (626.17–627.2).

We know of a 4th century BCE medical treatise identified in the title by refer-

ence to a dedicatee from Galen's reference to Diocleς of Carystus' Ύγιεινὰ πρός Πλείσταρχον (Alim.Fac. I:VI 455.7). Six of Ptolemy of Alexandria's works contain a vocative address in the first sentence,  $\hat{\omega} \Sigma \hat{\upsilon} \rho \epsilon$  in each case. for example *Syn*taxis mathematica 1,1 4 6-9: α'. Προοίμιον. Πάνυ καλώς οἱ γνησίως φιλοσοφήσαντες, ὦ Σύρε, δοκοῦσί μοι κεχωρικέναι τὸ θεωρητικὸν τῆς φιλοσοφίας ἀπὸ τοῦ πρακτικοῦ. In no case is there even the barest hint that Syrus has requested the work.

Ther.Pis. therefore differs from Galen's (other) dedicated works in that those other works are addressed to laymen whose medical knowledge is admittedly inferior to Galen's. The emphasis on the extent of Piso's knowledge of and interest in the subject matter of Ther.Pis. is reminiscent not of Galen's other works but on technical treatises on military matters addressed to the emperor: e.g. Apollodorus Poliorketika 137.1-4:

Άνέγνων σου, δέσποτα, τὴν περὶ τῶν μηχανημάτων ἐπιστολὴν καὶ μακάριος έγενόμην, ὅτι με κοινωνήσαι ταύτης σου τής φροντίδος ἄξιον ἔκρινας. Ποιήσας οὖν ὑποδείγματά τινα πρὸς πολιορκίαν εὔχρηστα ἔπεμψα διαγράψας

Similarly the *mise-en-scene* at the beginning of the piece vividly describing the genesis of the work at a meeting between the author of the work and a fellow enthusiast has parallels not in Galen but in technical military treatises: Aelianus Tacticus *Tactica* P 3 1–9:

Έπεὶ δὲ ἐπὶ τοῦ θεοῦ πατρός σου Νέρουας παρὰ Φροτίνω τῷ ἐπισήμω ὑπατικῷ έν Φορμίαις ήμέρας τινάς διέτριψα δόξαν άπενεγκαμένω περὶ τὴν ἐν τοῖς πολέμοις έμπειρίαν, συμβαλών τ' άνδρὶ εῦρον οὐκ ἐλάττονα σπουδὴν ἔχοντα εἰς τὴν παρὰ τοῖς ἕΕλλησι τεθεωρημένην μάθησιν, ἠρξάμην οὐκέτι περιφρονεῖν τῆς τῶν τακτικών συγγραφής, οὐκ ἂν ἐσπουδάσθαι παρὰ Φροντίνω δοκών αὐτήν, εἴπερ τι χεῖρον ἐδόκει τῆς Ῥωμαϊκῆς διατάξεως περιέχειν.

#### **Stylistic Features**

Various stylistic features of Ther.Pis. stand out which are confirmed by the TLG to be unusual within the Galenic corpus. First, the expression  $\delta \text{iaggefe}(\epsilon)$ διαφθεῖραι κακώς, to kill horribly, occurs on five occasions in the treatise: p. 82. l. 14 (effect of hellebore on men) p. 102. l. 11, p. 102. l. 19 (effect of snakes on men) p. 106. l. 17 (female viper killing male) p. 148. l. 15 (effect of plague on "whole cities"), and nowhere else in Galen. Leaving aside very late sources, outside Galen the phrase occurs only in Athenaeus Deipn. 7 86.28 (and in the epitome) where it describes how the Syracusans and the Italians ruin fish by cooking it with cheese, and twice in Josephus Jewish Antiquities 8.314.5 and 9.75.2 (destruction of men by war and famine respectively). The phrase

is an odd one—the adverb does not add much force to the verb in the first place and that force diminishes with each repetition. Compare the expression " $d\nu \alpha \iota \rho \epsilon \iota \nu \delta \xi \epsilon \omega \varsigma$ " which occurs three times in this treatise and once elsewhere in Galen.

# j Word Frequencies Methodological Note

I have identified six cases in which a word is notable on a simple reading of the text by its frequency or its scarcity or absence:  $\mu \eta \nu$ ,  $\gamma o \hat{\nu} \nu$ ,  $\tilde{\nu} \alpha$ ,  $\tilde{\omega} \sigma \pi \epsilon \rho$ ,  $\lambda o i \pi \delta \nu$  (used adverbially),  $\mu \eta$  used in preference to o $\hat{\nu}$ . I have verified these anomalies by word counts using the TLG (appendices 1–6). These six idiosyncrasies appear to me to represent real differences of style between *Ther.Pis.* and the rest of the corpus. I have also conducted the separate exercise of carrying out word frequency counts of the 20 commonest "function" words in Galen (identified by Signature software using a transcript of the corpus) and identifying the lowest and highest count for each of those words in the 47 treatises of over 10,000 words. On this test *Ther.Pis.* has the greatest number of lowest or highest counts of all the treatises except *Musc.Diss.* and *Bon.Mal.Suc.* The authenticity of those texts is not in question (Helmreich (1923) CMG V 4,2 XLII, Debru (2005)) and the position of *Ther.Pis.* in the list is therefore not strong evidence as to authorship but does establish it as something of an outlier on an objective test.

μήν

μήν is altogether absent, uniquely among Galen's works, unless my conjecture at p. 136. l. 5 is correct (where however οὐ μέν is also a possibility) in which case it is still four times lower than the count in any other treatise. (Appendix 1)

# γοῦν

The use of the particle  $\gamma \circ \hat{\nu} v$  is anomalously high: it constitutes 0.2% of the word count. In the 47 Galen treatises in the TLG of over 10,000 words the next highest score is 0.1% or exactly half as high. (Appendix 2)

ίνα

The word <code>iva</code> occurs with a strikingly high frequency compared to other Galenic tracts. (Appendix 3). The word appears 33 times in the 13,556 words of the treatise, a frequency of 0.24% of the total word count. The next highest count among the treatises of over 10,000 words is 0.07%, or one third as high. The discrepancy is very striking: the data excluding *Ther.Pis*. are distributed in an approximately normal distribution with *Ther.Pis*. over six standard deviations

away from the mean. The anomaly does not of itself prove anything about the authorship of the treatise unless it can be shown that it is not anomalous for other authors. This can in fact be clearly demonstrated: 0.24% is about the mean for Athanasius (0.29%) Origen (0.24%) Clement (0.28%) and Epiphanius (0.32%).

#### ὥσπερ

The treatise has the highest rate of use of the word  $\omega\sigma\pi\epsilon\rho$  of any of the treatises of over 10,000 words (Appendix 4).

#### λοιπόν

The treatise uses the word λοιπόν adverbially meaning "for the rest" (e.g. p. 76. l. 13 καὶ οὕτω λοιπὸν ἀκριβῶς ἑκάστου τῶν φαρμάκων τὴν δυνάμιν διὰ τῆς αὐτῆς αἰσθήσεως κρίνοντες εὑρίσκομεν) with unusual frequency for Galen—about nine times as frequently as in any other work (Appendix 5).

#### οὐ /μή

It is a striking feature of *Ther.Pis.* that the negative  $\mu \dot{\eta}$  is found so often when according to the rules of classical Greek où would be expected. So in the first sentence: σε κατείδον περὶ τὴν γνῶσιν αὐτῆς μὴ παρέργως ἔχοντα (p. 66. l. 4). This requires a negative ວບໍ according to the usual rules as an indirect statement and as a use of the participle which is neither conditional nor indefinite—(Abbott and Mansfield 1977, 197). ἐντελῶς πεπαιδευμένου τὴν τέχνην, μὴ μόνον τῇ πείρα τών ἔργων (p. 66. l. 11) ήμεῖς μὲν ἐπ' ἀνθρώπων τὴν κρίσιν αὐτοῦ ποιεῖσθαι μὴ δυνάμενοι (p. 70. l. 7) are further examples of participles requiring the negative ού but getting μή. ἐπεὶ μὴ μόνον τῷ παρὰ θεῶν ἔχειν τὸ βασιλεύειν ὑπερέχουσιν άπάντων(p. 72. l. 11) is a causal clause requiring the negative où but getting  $\mu$ ή (Abbott and Mansfield 1977, 197). ἐμοὶ δὲ δοκοῦσι τῶν ἄλλων θηρίων αὗται μὴ τοσαύτην έν τοῖς σώμασι τὴν φθοροποιὸν δύναμιν ἔχειν (p. 102. l. 5) is an indirect statement with the infinitive construction with negative μή. χρή μή εὐθέως αὐτὰ λαμβάνειν (p. 132. l. 17) would usually take οὐ and does so elsewhere in Galen e.g. καθαίρειν τηνικαῦτα τοῖς τοὺς μέλανας χυμοὺς κενοῦσι φαρμάκοις χρη οὐχ ἅπαξ μόνον, άλλά καὶ πολλάκις, ἢν οὕτως δέῃ. (MMG I: XI 39.14–16). ὡς ἐπί γε τῶν ἄλλων παθών, ὅπου μὴ τηλικαύτη ἐστὶν ἡ τοῦ βλάπτειν αἰτία p. 136. l. 23 demands either negative où or recasting as an indefinite construction.

φασὶ γὰρ καὶ τὸν Μιθριδάτην ἐκεῖνον τὸν μέγαν πολεμιστὴν, τὴν μὲν θηριακὴν μὴ λαμβάνοντα, οὐδέπω γὰρ ἦν ... (p. 150. l. 21) clearly demands οὐ but gets μή. The same applies to the indirect statement with infinitive construction concluding the same sentence διὰ τὴν ἐξ αὐτῆς κατεσκευσμένην τῷ σώματι δυσπάθειαν μὴ δυνηθῆναι λαβόντα τὸ φάρμακον ἀποθανεῖν and to μὴ ἀποθνήσκων (p. 152. l. 5). Appendix 6 shows the relative frequency of  $\mu \dot{\eta}$  to où oùx oùx(t) in the treatises on the TLG with a word count over 10,000. Note that *Ther.Pis.* is second on the list and that first and third to sixth are respectively are *Hipp. Fract. Hipp. Art. Hipp. Off. Med. HVA Hipp. Prog.* Not only are these all commentaries on Hippocrates, they largely coincide with a sub-group of commentaries identified by Galen as the earliest he produced in *Lib. Prop.* XIX 35. 4–8 and *Hipp.Epid.* XVIIa 577.11–17. In both places he lists *Hipp. Fract. Hipp. Art. Hipp. HVA Hipp. Prog.* plus lost works on wounds and head wounds and a commentary on the Aphorisms which may or may not be one of the surviving ones. This clustering of texts identified by Galen himself as closely related justifies a high degree of confidence in the  $\mu \dot{\eta}$  to où/oùx/oùx(t) ratio as a valid diagnostic tool. (It also of course acts as a warning, if one were needed, that if a test suggests that a text is unusual in any way that may have nothing to do with inauthenticity). Note also that *Comp. Med. Loc.* and *Comp. Med. Gen.* appear next to each other at 8 and 9.

As a separate exercise, in order to test word frequency in a way which excludes the possibility of bias, conscious or not, in the method of selection of those words towards any theory about Ther.Pis. a count was carried out using AntConc 3.3.1w software on a transcript into the Latin alphabet of Use of Parts. UP is the longest Galen text on TLG; length of treatise was not important per se but was used because a purely arbitrary basis of choice was required. The resulting list of the most commonly used words was then purged of inflections of the definite article because these dominate the list if treated separately. Frequency counts were carried out on the 47 treatises of over 10,000 words of the twenty most frequently occurring words in UP using TLG. The results appears in Appendices 7–26. It will be seen that *Ther.Pis.* is at the extreme end of the distribution, i.e. has either the lowest or highest count, (in fact the lowest in each case) in 6 cases: ἄν, δέ, γε, κατά, οὖν, τε. As there are 40 extremes and 47 treatises one would expect on average each treatise to appear once at an extreme. Ther. Pis. occupies an extreme more frequently than any other treatise. This fact should be treated with caution: the treatise with the next most extremes (5) is Musc.Diss. whose authenticity is well established (Debru 2005 92-94). Nevertheless the exercise confirms that *Ther.Pis.* is stylistically an outlier from the corpus as a whole.

These results need treating with caution: the incidence of  $\delta i \alpha \varphi \theta \epsilon i \rho \epsilon i \kappa \alpha \kappa \hat{\omega} \varphi$ cannot be treated as a stylistic quirk independently of the subject matter of the treatise which naturally entails a high number of references to horrible deaths; similarly the frequency of  $\gamma \circ \hat{\upsilon} \nu$  is partly dependent on the subject matter—it is used to introduce anecdotal illustrations and the treatise contains a high number of these. If the subject matter is unusual in either of these respects

that in itself may be a valid argument about authenticity but we must take care not to "double count" stylistic points if and to the extent that they result only from atypical subject matter.

The treatise is anomalous in its use of ö(ðaµɛv instead of ̈σµɛv as first person plural present indicative of ö(ða. ö(ðaµɛv occurs three times in *Ther.Pis.* and seven times elsewhere in Galen, as against 175 occurrences of ĭσµɛv which occurs in *Ther.Pis.* only in a quotation from Hippocrates p. 84 l. 3. Analysis of figures provided by the TLG shows that down to the time of Galen "mainstream" Greek prose writers either use "ĭσµɛv" exclusively (Thucydides, Isocrates, Xenophon, Aeschines, Anaximenes, Polybius, Plutarch) or greatly prefer ĭσµɛv to ö(ðaµɛv (Plato uses the words in the ratio 65:2, Aristotle 50:3, Demosthenes 10:4). The earliest exceptions to this rule are the Septuagint and the New Testament which contain respectively 11 and 43 instances of ö(ðaµɛv and no instances at all of ĭσµɛv. There follows a marked increase in the use of ö(ðaµɛv among Christian writers and in some cases a preponderance—e.g. Origen has a ratio ĭσµɛv: ö(ðaµɛv of 53:77, Athanasius 20:54. The figures for *Ther.Pis.* are not conclusive—the concentration of instances of ö(ðaµɛv may be mere chance—but nor are they to be dismissed out of hand.

The first instance of oldamev occurs in a context which gives a further indication of a possibly later author perhaps influenced by Christian sources:

ώσπερ δὴ τὸν θεῖον Μάρκον καὶ ἡμεῖς οἴδαμεν ἐνθέσμως ποτὲ βασιλεύσαντα ἐνθέσμως (p. 72. l. 3) here is a genuine απαξ λεγόμενον if the treatise dates from Galen's lifetime: the second recorded instance is in Eusebius Historia ecclesiastica Book 10 chapter 7 section 1 line 9, from the fourth century AD. For all words derived from the stem  $\dot{\epsilon}\nu\theta\dot{\epsilon}\sigma\mu$ - there are only three previous examples, Plutarch Nicias 6.6.4 and anon. Periplus Maris Erythraei 52.3 and 23.2. The meaning of the word is "in accordance with the law", "as provided by law"; it does not have the laudatory moral overtones of δίκη, δίκαιος. It does become comparatively more common in the fourth and subsequent centuries almost exclusively in Christian writers in expressions such as Eusebius *Historia ecclesiastica* 10.6.1.5-6 τη̂ς ένθέσμου καὶ ἁγιωτάτης καθολικῆς θρησκείας, Vita Constantini 4.17.1.4 εὐχὰς ἐνθέσμους. The lukewarm nature of the praise of Marcus Aurelius is itself puzzling; it perhaps reflects the advice of Menander Rhetor Περὶ ἐπιδεικτικών 376.31-377.2 on praising the emperor's predecessors in a βασιλικός λόγος in such a way that it is clear that they are outshone by the present incumbent—ἀντεξετάζων τὴν αὐτοῦ βασιλείαν πρὸς τὰς πρὸ αὐτοῦ βασιλείας, οὐ καθαιρῶν ἐκείνας (ἄτεχνον γάρ) άλλὰ θαυμάζων μὲν ἐκείνας, τὸ δὲ τέλειον ἀποδιδοὺς τῇ παρούσῃ. For present purposes the point is that the usage may point to a date for composition later than Galen's lifetime.

### φιλοτιμία

Ther.Pis. contains fifteen out of the 69 instances in the Galenic corpus on TLG of words formed on the stem φιλοτιμ- φιλοτιμία, φιλότιμος, φιλοτιμέομαι (excluding the proper name Philotimus). This is a relatively high preponderance and worth pointing out in any event. What truly distinguishes *Ther.Pis.* from the rest of the corpus in respect of these words is the meaning attached to them by the *Ther.Pis.* author. Despite the anodyne etymology of the words (love of honour) all are capable of having negative as well as positive connotations in Greek generally: LSJ glosses φιλότιμος as "loving honour or distinction, ambitious, mostly in bad sense"; φιλοτιμία as "love of honour or distinction, ambition, freq. in bad sense in early writers"; φιλοτιμέομαι as "love or seek after honour, ... hence, to be ambitious, emulous". In the context of Galen, Lloyd (1993 126–127 and n. 8) has reviewed at length his use of  $\varphi$  is  $\varphi$  in  $\varphi$  is  $\varphi$  in  $\varphi$  is  $\varphi$  in  $\varphi$  is  $\varphi$  in  $\varphi$  in  $\varphi$  is  $\varphi$  in  $\varphi$  in  $\varphi$  in  $\varphi$  is  $\varphi$  in  $\varphi$  in  $\varphi$  in  $\varphi$  in  $\varphi$  is  $\varphi$  in  $\varphi$ . φιλοτιμία, φιλονεικία/φιλονικία and cognate terms do not invariably carry pejorative undertones, they are used by Galen very commonly in treatises of many different types to accuse his predecessors or contemporaries of contentious rivalry" (127 n. 8).

Of the instances of the words in Ther.Pis. only one conveys any sense of contentious rivalry: φιλοτιμούντων p. 162. l. 2 where the sense seems to be that of engaging in acrimonious debate, though the use of the verb in the active voice is not recognised by LSJ (see note ad loc.). Of the other fourteen instances one (p. 112. l. 5) uses the word to mean "surprising" or "wonderful", of the claimed power of the mere sight of a scorpion to kill. Consider also the introduction of the anecdote about Piso ensuring that ointments are applied to his son's body in the proper place, έγὼ δέ τι καὶ φιλοτιμότερον θεώμενος, περιεργότερον τὸ ὑπὸ σοῦ γιγνόμενον ἔβλεπον (p. 68. l. 12). Plainly this action is carried out neither contentiously, nor in a bid to win τιμή. The only other instance in the corpus which appears to approach these examples in divorcing φιλότιμος from its root meaning is Inst.Od. II 868.13–15 φιλοτιμότερον δ' είσπνεύσας τη τετάρτη των ήμερων ίσχυρας ἤσθετο δήξεως ἐν τῷ βάθει τῆς κεφαλῆς. the Latin in Kühn has violentius for φιλοτιμότερον; Kollesch (CMG Suppl. V) has "zu heftig". The sense of contentiousness is therefore perhaps preserved here. The other occurrences of φιλοτιμία and cognates in Ther.Pis. are clearly and strongly laudatory: φιλοτιμία is ascribed to Piso (p. 106. l. 1 and elsewhere); to the emperors (p. 72. l. 26 and elsewhere); and to doctors who conduct themselves in accordance with the principles of the author as opposed to for instance the empiricists (p. 114. l. 15 and elsewhere); and to the author himself (p. 80. l. 8 and elsewhere). In the corpus outside Ther.Pis. the word can almost always be construed as having the underlying sense "love of honour", usually in a bad sense (e.g. At.Bil. V 130.14–131.1 Ίπποκράτης μὲν οὖν φαίνεται καλός τε καὶ ἀγαθός τις ἀνὴρ γεγονέ-

ναι, μὴ φιλοτιμίας ἢ φιλοδοξίας, ἀλλ' ἀληθείας ἐραστής) though bad φιλοτιμία can be redirected to good ends as in the plea to the sceptics at *Dig.Puls*. I: VIII 785.4–6: εἰ σχολὴν ἀγετε, καὶ τὸν βίον οὐκ ἀνατρέπειν, ἀλλ' ἀφελεῖν προήρησθε, καὶ τὴν τέχνην οὐ κωλύειν, ἀλλ' αὔξειν ἐσπουδάσατε, τὴν φιλοτιμίαν ταύτην εἰς τὰ χρηστότερα τρέψατε. Elliptically, the verb comes to mean "to dispute with" or "vie with" e.g. *HNH* XV 105.2–4 πρὶν γὰρ τοὺς ἐν Ἀλεξανδρεία τε καὶ Περγάμῳ γενέσθαι βασιλεῖς ἐπὶ κτήσει παλαιῶν βιβλίων φιλοτιμηθέντας, οὐδέπω ψευδῶς ἐπεγέγραπτο σύγγραμμα.

What is striking in *Ther.Pis.* is not the high incidence of the use of  $\varphi i \lambda \sigma \tau \mu i \alpha$ and cognates, which would in theory be explicable on the basis of the subjectmatter of the treatise, but the fact that the words do not have in *Ther.Pis.* the meaning which they consistently have in the rest of the corpus. It is not just that the negative connotations are absent, but so too to some extent is the underlying concept of love of honour/ambition. The emperors are already emperors, and Piso has achieved  $\tau i \mu \eta'$  in his public career (and is not seeking to do so in medicine). Attribution of  $\varphi i \lambda \sigma \tau \mu i \alpha$  in the sense of personal ambition to them is therefore out of place.

Turning to Galen's near-contemporaries we find that in many authors φιλοτιμία has the primary meaning ambition, often with negative overtones, as it does in Galen. The word is very common in Plutarch's *Lives* for instance and usually means political ambition, often in a bad sense e.g. *Sulla* 4.4.4–9 ἀπέδειξε τὸν Εὐριπίδην σοφὸν ἀνδρα καὶ πολιτικῶν ἐπιστήμονα νοσημάτων, διακελευσάμενον φυλάττεσθαι τὴν φιλοτιμίαν ὡς ὀλεθριωτάτην καὶ κακίστην δαίμονα τοῖς χρωμένοις. There is often also the connotation of ambition leading to strife with a rival e.g. *Crassus* 6.5.1–3 ἀπ' ἐκείνων δὲ τῶν πράξεων λέγουσιν αὐτῷ πρῶτον ἐγγενέσθαι τὴν πρὸς Πομπήιον ὑπὲρ δόξης ἅμιλλαν καὶ φιλοτιμίαν.

There is however an alternative tradition in which φιλοτιμία loses its connotations of strife and ambition for personal advancement and comes to mean as in *Ther.Pis.* mere benevolence. We find this commonly in Philo Judaeus. As in *Ther.Pis.* φιλοτιμία is often an attribute of a king: μετὰ δὲ ταῦτ' εὐωχίαι ἦσαν καὶ πολυτελεῖς ἑστιάσεις καὶ ὅσα ἄλλα πρὸς ὑποδοχὴν ξένων ἔθος εὐτρεπίζεσθαι, φιλοτιμίαις βασιλικαῖς πάντα πρὸς τὸ μεγαλειότερον ἐπιδιδόντα καὶ σεμνότερον ὄγκον. Philo Judaeus *De vita Mosis* (lib. i–ii) 275.4–276.1; associated with the specifically regal act of founding a city ἐπειδὰν πόλις κτίζηται κατὰ πολλὴν φιλοτιμίαν βασιλέως ἤ τινος ἡγεμόνος αὐτοκρατοῦς ἐξουσίας μεταποιουμένου καὶ ἅμα τὸ φρόνημα λαμπροῦ τὴν εὐτυχίαν συνεπικοσμοῦντος, … Philo Judaeus *De opificio mundi* 17.3–5. Similarly Flavius Josephus associates φιλοτιμία with kingly generosity: ένεφάνισε γὰρ τὴν ἀρετὴν αὐτοῦ καὶ τὴν τοῦ πλήθους πρὸς αὐτὸν εὔνοιαν τὸ πένθος, ὃ ἐπὶ πολὺν χρόνον ὁ λαὸς ἤγετο, καὶ ἡ περὶ τὴν ταφὴν αὐτοῦ καὶ τὴν τῶν νομιζομένων ἀναπλήρωσιν φιλοτιμία τε καὶ σπουδή.

Antiquitates Judaicae 6 292.3–293.1

τὴν μέντοι γε τῶν ἀναθημάτων πολυτέλειαν καὶ κατασκευήν, ἡν ἀπέστειλεν ὁ βασιλεὺς τῷ θεῷ, οὐκ ἀνεπιτήδειον ἡγησάμην διελθεῖν, ὅπως ἅπασιν ἡ τοῦ βασιλέως περὶ τὸν θεὸν φιλοτιμία φανερὰ γένηται ἄφθονον γὰρ τὴν εἰς ταῦτα δαπάνην χορηγῶν ὁ βασιλεὺς καὶ παρὼν ἀεὶ τοῖς τεχνίταις καὶ τὰ ἔργα ἐπιβλέπων οὐδὲν ἀμελῶς οὐδὲ ῥậθύμως εἴα γίγνεσθαι τῶν κατασκευασμάτων. Antiquitates Judaicae 12 58.1–7

Ταῦτα πάντα ὁ Σολόμων εἰς τὴν τοῦ θεοῦ τιμὴν πολυτελῶς καὶ μεγαλοπρεπῶς κατεσκεύασε μηδενὸς φεισάμενος ἀλλὰ πάσῃ φιλοτιμία περὶ τὸν τοῦ ναοῦ κόσμον χρησάμενος

Antiquitates Judaicae 8 95.1-3

For φιλοτιμία as public munificence as manifested in the actions of the χορηγός cf. Gregorius Nyssenus *De beneficentia* 9.100 13–15 ώς γὰρ οἱ ἀγωνοθέται τῆς ματαιότητος ὑπὸ σάλπιγγι τὴν ἑαυτῶν φιλοτιμίαν σημαίνοντες πᾶσι τοῖς τῆς παλαίστρας τὴν τοῦ πλούτου διανομὴν ἐπαγγέλλονται and Gregorius Nyssenus *Contra usurarios* 9.199.20 ὁρậς τὴν φιλοτιμίαν; βλέπεις τὴν ἀγαθότητα; of Christ's promise to Peter Mark 10:28–31—the attribution by a Christian writer to Christ of φιλοτιμία shows how far the meaning has shifted from that of ambition for personal advancement.

 with the rest of the Galenic corpus where the conjunction of  $\varphi_i\lambda_0\tau_i\mu_i\alpha$  with  $\lambda_0$  is would usually imply in Lloyd's words "contentious rivalry".

# k Rare Words

Labbé (1660 28) asks rhetorically "cur in eo (*sc. Ther.Pis.*) plurima verba, ab ipso alias non usurpata" as an argument for non-Galenic authorship. This is not a strong argument. There are fifteen words in the work which occur nowhere else in Galen (see below); for comparison *Ant*. I (which is slightly longer than *Ther.Pis.* at 105 pages of Kühn as opposed to 84 for *Ther.Pis.*) contains six words which occur nowhere else in Galen:

Ant. I: XIV.12 ἀλληλουχία; Ant. I: XIV.15 δεκαετία; Ant. I: XIV.15 συνάμιλλος; Ant. I: XIV.49 κονιορτώδες; Ant. I: XIV.74 ἐκπλὕτος; Ant. I: XIV.79 πεδĭάς.

Praen. on the other hand has seven on the first four pages alone:

Praen. XIV.599 θωπευτικώς; Praen. XIV.599 ἀξιοζήλωτοι; Praen. XIV.602 διαβουλευόμενος; Praen. XIV.602 φαγαδευθέντων; Praen. XIV.603 ὑποπτήσσοντα; Praen. XIV.603 συρφετοῦ; Praen. XIV.603 ζάλη.

Unique words in Ther.Pis. are:

παιδαριωδώς p. 78. l. 24 σποδώδες p. 160. l. 20 σωτηριωδέστατον p. 116. l. 22 X ἐνθέσμως p. 72. l. 3 X ἐντελώς p. 66. l. 11 and ἐντελῆ p. 72. l. 23 ἀξιέπαινος p. 72. l. 24; previously only Xenophon 3 and 1 spurious Demosthenes ἐντρεχεία p. 68. l. 16 ἀντιπαραλαμβάνω p. 76. l. 11 προσπαραλαμβάνω p. 76. l. 10 ἐκδικία p. 108. l. 1 τετεχνολόγηται p. 84. l. 21. ἐπιγλυχαίνω p. 144. l. 25 very rare 9 hits for stem but exists bc (Theophrastus)
ἐνδυμα p. 150. l. 14 (K 19.367 in LSJ is from the spurious *Def.Med.*)
ποτιμώτατος p. 156. l. 12
ἐντέχνως p. 76. l. 28 p. 84. l. 20 ἐντέχνοις p. 118. l. 24: ἐντέχν- stem not elsewhere in Galen
ἐπαγωνίζομαι p. 114. l. 19
συναποχόπτεται p. 116. l. 9

#### **Conclusions on Authenticity**

The matters discussed above cast serious doubt on the ascription of this treatise to Galen. There is much that is distinctively Galenic about the work: turns of phrase, doctrinal positions, lines of argument, beliefs about specific drugs, the author's purported relationship with the imperial household. There is also much that is at odds with him on fundamental questions such as the nature of the  $\delta\iota\psi\dot{a}\varsigma$  and its relation to the  $\check{e}\chi\iota\delta\nu\alpha$  (p. 24), the meaning to Hippocrates of the word  $\varphi\alpha\rho\mu\alpha\varkappa\epsilon\iota\alpha$  (p. 33) and the apparent ignorance of the history of Pergamum. The differences seem to me to be more significant than the resemblances: the resemblances can be explained by saying that our author is not Galen but a Galenist and should therefore be expected to echo Galen to a greater or lesser extent; the differences are compatible with a Galenist author, but not with Galen himself.

So what has happened here? The possibilities are succinctly set out by Labbé (1660) 26: (followed by Ackermann and quoted by Swain (1998, 430)): "Alterum est, Galenum non videri eius libri auctorem, sed alium quemdam medicum, qui Galeno superstes fuerit, et sub imperatoribus Severo et Caracalla theriacam composuerit in usum imperatorum; aut certe ab aliquo nugatore, exercendi stili gratia, ex iis, quae apud Galenum in libris de antidotis legerat". If Ther.Pis. is not the work of Galen then either it is a piece of deliberate mimicry or there is an otherwise unknown or little known doctor who shared many of Galen's views and habits of thought and writing and who was jointly with Galen doctor to Marcus Aurelius and subsequent emperors, and hits more or less independently on the idea of writing a treatise on theriac centred on the Andromachus poem which features in both Ther.Pis. and Ant. One possibility would be Statilius Attalus (suggested by Professor Vivian Nutton-personal communication). If it is a piece of mimicry it is probable that the author has access to a copy of Ant. since he adopts its use of the Andromachus poem as a centrepiece. The shared passage with Julius Africanus Cesti suggests a date before 235 if the argument that the passage originates in *Ther.Pis.* (p. 22 above) is correct. The purpose of the mimicry, if what we have is mimicry rather than the work of a Galenist, can only be a matter of speculation.

### Note on Chapter Headings

The chapter headings and chapter divisions in Chartier adopted by Kühn do not appear in the mss. or the earlier Greek editions of the work prior to Chartier. The only heading in L, Ότι τῶν ἀπλῶν φαρμάκων τὰ μὲν ἐξ ὅλης οὐσίας ἁπλῆν τὴν δύναμιν έχει τὰ δὲ μικτήν p. 78 l. 1, was relegated to the margin by  $Q^1$  and not printed in the Aldine. They do however correspond to chapter divisions and headings in Latin in the Rasario edition of 1562 and the Giunta edition of 1565 (Giun.) where the Latin translations differ from that in Chartier but are clearly translations of the same Greek. see for instance the heading to chapter 1: Πίσωνι τὸν λόγον ἀνατίθησιν, Ἀνδρόμαχον ἐπαινεῖ, καὶ τῆς γραφθησομένης πραγματείας τὸ αἴτιον ἐκδηλοῖ ὁ Γαληνός. Commendat hoc loco Andromachum theriacae auctorem, et cur animum ad hunc librum conficiendum appulerit, causam affert. (Rasario). Libri Dedicatio, Andromachi Commendatio, et Quid Galenum impulerit Ad hoc opus scribendum. (Rota). Librum dicat Pisoni, Andromachum commendat, et causam operis conscribendi aperit Galenus. (Chartier). Juvenis has chapter headings identical save for the occasional variation in word order to those in Rota, though his text is otherwise independent of Rota. The 1549 Basle Latin edition (Frob.) divides the work into 36 short chapters, listed and summarised under the heading "Argumenta Capitum Libri Ad Pisonem, De theriaca" before the main text begins (pp. 339–342). The same edition provides similar "Argumenta" for all or virtually all the treatises contained in it and these are clearly the work of the editors. There are no headings in the text itself of Frob. except in the first sentence of chapter 1 where a Latin translation of the heading in P (see below) is adapted as a preamble to the actual opening of the text: "Quandoquidem theriaca inter omnia alia medicamenta maximo studio expetitur, propter vim efficaciae quam habet, et eo quod etiam sanis ad multa utilis theriacae usus existit: librum hunc quoque de Theriaca, optime Piso ..."; this is however absent in the 1531 translation by the same translator (Ander.) There are no chapter headings in the epitome (of Andernach's 1531 edition) in Laguna (1553) 649-670.

P begins with the following heading: Γαληνοῦ πρὸς Πισῶνα περὶ τῆς θηριακῆς: -Ότὶ ἡ θηριακὴ τῶν ἄλλων ἀπάντων φαρμάκων περισπούδαστός ἐστι διὰ τῆν δύναμιν τῆς ἐνεργείας. Ότὶ καὶ τοῖς ὑγιαίνουσιν εἰς τὰ πολλὰ χρήσιμος γίγνεται λαμβανομένη ἡ θηριακὴ. O has a list of 13 chapter headings immediately before the text (folio 170<sup>r-v</sup>); see Appendix 27. Compare the first and thirteenth (penultimate) chapter headings in O: Ὅτι ἡ θηριακὴ τῶν ἄλλων ἐστι φαρμάκων μᾶλλον περισπούδαστος διὰ τῆν δύναμιν τῆς ἐνεργείας. Ὅτι καὶ τοῖς ὑγιαίνουσιν εἰς πολλὰ χρησίμη γίγνεται λαμβανομένη ἡ θηριακή. with P's heading. P's heading does not reflect the contents of the actual excerpts closely, since they do not compare theriac with other drugs but do focus largely on the testing of the drug. Presumably the

There are therefore two principal unresolved issues: first, what is the origin of the Greek chapter headings appearing first in the surviving Greek texts in Chartier in 1639 but apparently translated in Rasario 1562 and Rota 1565; secondly, why does Andernach incorporate the misleading heading of P into his translation of 1549 (though not into his earlier version of 1531)?

## Text and Translation

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## ΓΑΛΗΝΟΥ ΠΡΟΣ ΠΙΣΩΝΑ ΠΕΡΙ ΤΗΣ ΘΗΡΙΑΚΗΣ ΑΝΤΙΔΟΤΟΥ

- XIV 210 K. I. Καὶ τοῦτόν σοι τὸν περὶ τῆς θηριακῆς λόγον ἀκριβῶς ἐξετάσας ἅπαντα, ἄριστε Πίσων, σπουδαίως ἐποίησα, καὶ μάλιστα ἐπεί σε κατεῖδον περὶ τὴν γνῶσιν αὐτῆς μὴ παρέργως ἔχοντα. εἰσελθών γάρ ποτε πρός σε κατὰ τὸ ἔθος, πολλὰ μὲν καὶ ἄλλα τῶν συνήθων σοι παρακείμενα βιβλία εὖρον. καὶ γὰρ καὶ ἄλλως ἔστι σοι φίλον, μετὰ 5
  - 211 τὰς δημοτικὰς τῶν πράξεων ἀσχολίας, τοῖς παλαιοῖς τῶν φιλοσόφων ἀνδρῶν ὁμιλεῖν. Υενόμενον δέ τι σύγγραμμα περὶ τῆς ἀντιδότου ταύτης οὐκ ἀηδῶς ἀνεγίνωσκες τότε, καί μοι παραστάντι σοι εὐθέως μὲν φιλικοῖς ἐνεῖδες τοῖς ὄμμασι, δεξιῶς δὲ καὶ προσηγόρευσας, καὶ μετὰ ταῦτα πάλιν ἀνεγίνωσκες τὸ βιβλίον, ἀκροατὴν ἔχων ἐμέ. ἤκουον δὲ καὶ αὐτὸς, οὐκ ἀμελῶς γὰρ ἦν τὸ σύγγραμμα συντεταγμένον ὑπὸ τινος ἀνδρὸς 10 Μάγνου καλουμένου, ἐντελῶς πεπαιδευμένου τὴν τέχνην, καὶ μὴ μόνον τῆ πείρα τῶν ἔργων, ἀλλὰ καὶ τῷ λόγῳ, τῶν ἐπ' αὐτοῖς λογισμῶν ἀκριβῶς ἡσκημένου. †τὸ γοῦν ἄρχειν ἡμῶν†, διὰ τὴν ἐν τοὑτοις ὑπεροχὴν, ὑπὸ τῶν κατ' ἐκεῖνον καιρὸν βασιλέων ἦν πεπιστευμένος, ὡς ἔμοι δοκεῖ, τάχα τι καὶ τῆς πατρίδος αὐτῷ εἰς τὸ ἀκριβῶς ἐκμαθεῖν τὴν ἰατρικὴν συναραμένης. Κρὴς γὰρ τὸ γένος ἦν, καὶ εἰκὸς ἦν τὴν Κρήτην, ὡς 15 ἄλλα πολλὰ τῶν βοτανῶν, οὕτω καὶ ὡς τι φάρμακον ἀγαθὸν τοῖς ἀνθρώποις ἐνεγκεῖν τὸν τοιοῦτον ἄνδρα. ἀναγινώσκοντος δέ σου τὰ γεγραμμένα, πάνυ γε ἐγὼ ἔχαιρον, ὅτι
  - 212 οὕτως ἀκριβῶς προσεῖχες τοῖς ὑπὸ τοῦ ἀνδρὸς λεγομένοις, καὶ ἀληθῶς μέγα με θαῦμα κατεῖχε, καὶ τῆ καθ' ἡμᾶς τύχῃ πολλὴν τὴν χάριν εἶχον, ὅτι σε φιλοπόνως οὕτως ἔχοντα περὶ τὴν τέχνην ἔβλεπον. οἱ μὲν γὰρ πολλοὶ τῶν ἀνθρώπων μόνην τὴν ἀκοὴν ὑπὸ τῶν 20 ταύτης λόγων εὐφραίνεσθαι θέλουσι. σὺ δὲ οὐ μόνον τῶν λεγομένων ἡδέως ἀκούεις, ἀλλὰ καὶ πολλὰ τῶν μὴ λεγομένων ἐξ ἐμφύτου συνέσεως εὑρίσκεις εὐφυῶς. ἔνια δὲ καὶ τῶν ἔργων οὕτως ἀκριβῶς ἐπίστασαι καὶ βλέπεις, ὡς οἱ φιλοπόνως μαθόντες ἡμεῖς. ὅπερ ὡς ἀληθῶς ἐγὼ θεασάμενος ἐπὶ σοῦ καὶ πάνυ κατεπλάγην.

<sup>15</sup> Ant. I: XIV 9.11-10.12, 30.14-16, 53.7-9 Ther.Pamph. XIV 296.11-297.1

<sup>1</sup> ΑΝΤΙΔΟΤΟΥ] L BIBAION edd 2 τὸν] L om. P || λόγον] L τὸν λόγον V || ἀχριβῶς] L ἀχριβῶς ἔχοντα καὶ P 4 ποτε πρός σε] L πρός σε ποτε O P 5 ἄλλως] L ἄλλων O 6 φιλοσόφων] L φιλολόγων P philosophers Arab. 7 δέ] L om. P οὖν O || τότε] L τὸ τὶ P 8 καὶ] L om. O 10 ἦν] L εἶεν P 10–11 ἀνδρὸς Μάγνου] L Q Arab. Ἀνδρομάχου P edd. 11 ἐντελῶς] L ἀκριβῶς P || πεπαιδευμένου] L ἡσκημένου P || καὶ] L O om. al. 12 τῷ λόγῳ, τῶν ἐπ' αὐτοῖς λογισμῶν] L τοῖς λόγοις, τῶν ἐπ' αὐτοῖς λογισμῶν O τοῖς λόγοις, τὸν ἐπ' αὐτοῖς λογισμὸν P edd. || ἀκριβῶς] L ἀκρῶς P 13 κατ' ἐκεῖνον καιρὸν] Kühn παρ'ἐκείνῳ καιρῷ L ἐκεῖνο καιρὸυ O κατ' ἐκεῖνο καιρῶν P κατ'ἐκείνῳ καιρῷ Ald. Crat. Chart. || ἦν] L om. P 14 ἔμοι] L ἔμοιγε edd. || αὐτῷ] L αὐτῶν P 15 συναραμένης] L συναραμένῳ P; desinit P 16 τῶν] L om. O || ὥς] L εἴς sup. lin. scribit L εἴς Q edd. 18 L γε post οὕτως transp. O 20 ἀνθρώπων] L ἄλλων ἀνθρώπων O edd. || μόνην] L μόνον O 21 ἡδέως ἀκούεις] L ἀκούεις ἡδέως O 22 καὶ πολλὰ] L πολλὰ καὶ O 23 μαθόντες] L μανθάνοντες O

I. I have made this whole discourse on theriac diligently for you, excellent Piso, having researched everything accurately, especially because I saw that for you the knowledge of it was of more than trivial importance. For I once came to your house, according to my custom, and found you as usual with many books lying around you; for you do especially love, after the conclusion of the public duties arising from your affairs, to spend your time with the old philosophers. On this occasion you had acquired a book about this antidote and were reading it with pleasure; and when I was standing next to you you immediately looked on me with the eyes of friendship and greeted me courteously and then took up the reading of the book again, with me as audience. And I listened because the book was thoughtfully written by a man called Magnus, a man well trained in his art and practised not only in the experience of practical matters but also in theory, being well trained in accurately reasoning on the basis of his practical experience. At least he was thought by the kings of those days to be the best of us doctors because of his excellence in these matters, perhaps partly-it seems to me-because his nationality was ideally suited for him to learn the art of medicine. For he was of Cretan origin, and it seems likely that Crete just as it bears many kinds of herbs, should also bear a man of this kind to be as it were a useful drug for mankind. And as you read what he had written I was entirely glad that you were giving such close attention to his words, and truly a great sense of wonder came over me and I was very grateful for our good luck, when I saw you so enthusiastic about the art. For most men just want to derive the pleasure of listening from discourses on medicine: but you not only listen with pleasure to what is said, but also learn from your native intelligence understanding many of the things which are not said, and also know and understand many matters of medical practice as well as we who have diligently learnt them. I truly saw this in your case and was completely amazed. όπότε γάρ σου τῶν παίδων ὁ φίλτατος τὴν περὶ τὸ περίναιον διάθεσιν ἔσχεν ἔκ τινος τοῦ ἱππεύειν ἀνάγκης, ἐπειδή τις καὶ δημοτελὴς ἦν μυστηρίων ἱερουργία, διὰ θρησκείαν, τὴν ὑπὲρ Ῥωμαίων θεῶν ἀναγκαίως ἀγομένην τότε, ἐφ' ῷ δὴ καὶ τοὺς εὐγενεστάτους παίδας ἱππεύοντας εὐρύθμως καὶ χορεύοντας τοὺς ἵππους ἔδει τινὰ τῶν μυστηρίων καὶ αὐτοὺς ἐπιτελεῖν. ὅτε δὴ καὶ τοῦ παιδὸς τοῦ σοῦ ἀπαλοῦ τυγχάνον-5

- 213 τος πάνυ ό τόπος οὗτος περιθλασθεὶς, βιαίως ἀπέστη τε τῶν ὑποκειμένων, καὶ μετ' αὐτὸ πῦον συναγαγών, ἐδεήθη καὶ τομῆς, καὶ ὁ μὲν παῖς, ὥσπερ τἰς ἀνὴρ ἤδη, τλη-μόνως ἁπάντων ἀνεχόμενος, ἐπιεικῶς ἐθεραπεύετο, καθάπερ ἔκ τινος φιλοσοφίας λόγου, καρτερία τε καὶ ἀνδρεία πρὸς τὰ παρόντα εὐφυῶς συνησκημένος, σὺ δὲ ἐφε
  - στὼς ἀκριβῶς οὕτως ἔβλεπες, καὶ τοῖς γιγνομένοις ὑφ' ἡμῶν ἄπασι προσεῖχες, ὡς εἶ ποτέ τι καὶ παρέργως ἐγίγνετο, εὐθέως ἐφεστάναι, καὶ παραινεῖν κατὰ τὸν Ἱπποκράτην, μηδὲν εἰκῆ ποιεῖν. ἐγὼ δέ τι καὶ φιλοτιμότερον θεώμενος, περιεργότερον τὸ ὑπὸ σοῦ γιγνόμενον ἔβλεπον. εἴ ποτε γάρ τι καὶ τῶν ἐπιτιθεμένων ὑπὸ τοῦ θεραπεύοντος φαρμάκων ἀτόπως ἔκειτο, τοῦτο τοῖς σαυτοῦ δακτύλοις μετετίθεις τε καὶ δεόντως
- ἐμφαίνεσθαι δὲ αὐτὰς τότε, ὅτε ἡ χρεία καλεῖ. ὥσπερ δὲ δὴ καὶ ἐπὶ σοῦ, διὰ τὴν περὶ 20 τὸν παῖδα φροντίδα, ἀπροσδόκητος ἡμῖν ἡ παροῦσά σοι τῆς τέχνης ἐμπειρία κατεφαίνετο, καὶ εἰκότως φιλόκαλός τε ὢν, οὕτω καὶ εὐφυής. οὐδὲ περὶ τὸ φάρμακον τοῦτο τὴν θηριακὴν ἔσχες ἀμελῶς, ἀλλ' ἐσπούδασας αὐτοῦ εἰδέναι τήν τε δύναμιν καὶ τὴν κρᾶσιν, τόν τε καιρὸν καὶ τὸ μέτρον τῆς χρήσεως ἀκριβῶς ἐκμαθεῖν.

II. Καὶ γὰρ ἐστὶν ὡς ἀληθῶς παρὰ τοῖς ἀνθρώποις ἅπασιν ἐνδοξότατον, διά τε τὸ 25 ἀπταιστον τῆς ἐπαγγελίας καὶ διὰ τὸ δυνατὸν τῆς ἐνεργείας·

<sup>11</sup> Hp. Epid. VI 2.12.1

<sup>1</sup> περὶ τὸ] L om. O || περίναιον] Andernach, Rota περιτόναιον L Arab. 2 L ἦν post τις transp. O || ἦν] L ἦς Rasario, Rota || ἱερουργία] O Friedlaender ἱερουργῶς L ἱερουργὸς Q<sup>1</sup> 3 τὴν ὑπὲρ Ρωμαίων θεῶν] L θεῶν τῶν ὑπὸ Ῥωμαίων O 4 χορεύοντας] L χωρεύοντας O || τοὺς ἵππους] conieci ὥσπερ τοῖς ἵπποις L, edd.; ὥσπερ seclusit Friedlaender 8 ἐπιεικῶς] L εὑπαθῶς Y || φιλοσοφίας] scripsi τοῦ φιλοσοφίας codd. edd. 10 ἀχριβῶς οὕτως] L οὕτως ἀχριβῶς O || ὡς] L om. O 11 ἐγίγνετο] L ἐγίνετο O 12 τι] L τε O || θεώμενος] L θεόμενος O 14 φαρμάχων] L φαρμάχων O || ἀτόπως] L om. Q<sup>1</sup> || σαυτοῦ] L ἀυτοῦ O 17 ἦν] L ἦν εἰδεῖν O Ald. Crat. ἦν ἰδεῖν Kühn 20 περὶ] L ἐπὶ Y 22–23 τοῦτο τὴν θηριαχὴν] L om. O

For when your son, the dearest of your children, had a condition of the perineum arising from the need to ride a horse, when there was a celebration of mysteries at the public expense because of the worship of the Roman gods which was compulsorily held then, for which it was also necessary for the bestborn boys, riding rhythmically, and their horses dancing, to perform certain of the mysteries themselves; when this part of your tender young son was bruised and forcibly raised from the parts beneath it, and after this collecting pus, and surgery was needed, and your son, bearing everything with fortitude as if he were already a grown man, was given the appropriate medical attention, being nobly prepared as if from some philosophical principle to face his situation with strength and bravery; you stood by and watched so carefully and paid such close attention to everything we did that if something even trivial happened, you immediately admonished us and advised us, in Hippocrates' words, to do nothing without a purpose. And I, seeing something even more praiseworthy, watched you doing something yet more dedicated: for whenever an ointment applied by the attendant was out of place you moved it with your own fingers and applied it to the wound so that it was wonderful to see, as a result of your love for your son and your natural skill, with your hands suddenly displaying such precise skill, and one could see in your case what Plato, who no doubt had often witnessed it in many cases, and rejoiced in the necessity of truth, says: that to learn things is really to remember them and that the soul seems to have knowledge of everything, and produce it when necessity calls it forth. And so in your case because of your care for your son, your ability in the craft, unexpected by us, appeared—quite reasonably, being both virtuous and noble. And you were by no means lacking in interest in this drug, theriac, but were keen to know about its power and composition, and to learn accurately about the right occasion for its use, and the dosage.

II. Indeed, it is truly most famous among all men both because of the infallibility of its stated properties and the power of its effect. οὔτε γάρ τις δηχθείς ποτε ὑπὸ τῶν ἀναιρεῖν εἰωθότων θηρίων εὐθὺς πιὼν τὴν ἀντίδοτον ἀποθανὼν ἱστόρηται, οὔτ' ἂν προπιών τις, εἶτ' οὐ μετὰ πολὺ δηχθεὶς ἰσχυρότερον πρὸς τὸ ἀποκτεῖναι τὸν ἰὸν ἔσχε τοῦ θηρίου, ὅπερ πολλάκις καὶ τῶν ἀρχόντων τινὲς, 215 ἐξουσίαν θανάτου καὶ ζωῆς ἔχοντες, εἶτα κρῖναι τὸ φάρμακον θέλοντες, εἰ τοῦθ' ὅπερ

- ἐπαγγέλλεται, καὶ δρᡇ̂ν δύναται, ἐπὶ τῶν ἤδη διά τινας πονηρὰς καὶ παρανόμους πρά-5 ξεις κατακριθέντων ἀποθανεῖν δοκιμάζουσιν αὐτὸ, ἡμεῖς μὲν ἐπ' ἀνθρώπων τὴν κρίσιν αὐτοῦ ποιεῖσθαι μὴ δυνάμενοι, ἐπί τινων ἄλλων ζώων τὸ αὐτὸ δρῶντες, τὴν ἀληθῆ τοῦ φαρμάκου κρίσιν εὑρίσκειν πειρώμεθα. ἀλεκτρυόνας γὰρ λαβόντες, τοὺς μὴ ὅσοι γέ τινες οἰκοδίαιτοί τέ εἰσιν, καὶ ἡμῖν ὁμορρόφιοι, ἄγριοι δὲ μαλλον τυγχάνουσιν ὄντες,
  - καὶ ξηρότερον κεκραμένοι τὸ σῶμα, οὕτως αὐτοῖς προβάλλομεν τὰ θηρία, καὶ τὰ μὲν 10 εὐθέως ἀποθνήσκει τὰ μὴ πιόντα, ὅσα δὲ πέπωκεν, ἰσχύει καὶ μετὰ τὸ δῆγμα τὴν ζωὴν ἔχει. δοκιμάζειν δ' ἐνίοτε χρὴ τὸ φάρμακον, εἰ μή ἐστι δεδολωμένον, καὶ τοὑτῳ τῷ τρόπῳ. διδόντες γάρ τι τῶν διὰ γαστρὸς καθαίρειν δυναμένων φαρμάκων, προδίδομεν τῆς θηριακῆς, καὶ ὅταν δοθείσης αὐτῆς μὴ καθαίρηται ὁ λαβὼν τὸ καθαρτικὸν φάρμα-
- κον, αὐτῷ δοκιμάζομεν τὴν ἀντίδοτον ἀρίστην οὖσαν, ἐπειδὴ ἐκώλυσε τὴν κάθαρσιν 15 216 γενέσθαι τῷ λαβόντι τὸ καθαρτικὸν φάρμακον, ὡς διὰ τὴν τοιαύτην κρίσιν, μή ποτ' ἂν ἡμᾶς σφαλῆναι περὶ τὴν τοῦ ἀληθοῦς φαρμάκου εὕρεσιν. πολλὴ γάρ ἐστιν ὑπὸ τῶν πανουργούντων καὶ ἡ περὶ αὐτοῦ γινομένη πανουργία, καὶ οἱ πολλοὶ τῇ δόξῃ μόνῃ τῆς ἀντιδότου ἀπατώμενοι, παρὰ τῶν καπηλικῶς χρωμένων τῇ τέχνῃ, πλείστου
  - ἀργυρίου, καὶ μὴ καλῶς ἐσκευασμένον, ἀνοῦνται τὸ φάρμακον. εἰσὶ γὰρ καὶ τῶν ὑγιαι-20 νόντων τινὲς οἳ ἐν ὅλῷ καὶ παντὶ τῷ βίῷ ἀδιαλείπτως χρῶνται τῷ φαρμάκῳ, μάλιστα ὅσοι διὰ τὸ σκαιὸν, καὶ ἀνελεύθερον τοῦ τρόπου μὴ ζῶσιν ἀμερίμνως, ἀλλ' ἀεὶ πρὸς τὸ

<sup>4</sup> Ant. I: XIV 2.3-13

<sup>1</sup> δηχθείς ποτε] L ποτε δηχθείς Ο 3 ίδν] L om. Ο 4 εἶτα] L εἶτα τὸ Q<sup>1</sup> edd. || εἰ] L εἰς Ο 6 ήμεῖς μέν] incipit P Περί τοῦ πῶς δεῖ δοχιμάζειν τὴν θηριαχήν: ἡμεῖς μέν P ἡμεῖς μέν (Πῶς δεῖ δοχιμάζειν την θηριαχήν in marg.) Ο ήμεῖς μέν (Πῶς δοχιμαστέον την θηριαχήν in marg.) L || ἐπ' ἀνθρώπων] L ἐπ' ἀνθρώπου ποτὲ Ρ 7 τὸ αὐτὸ δρῶντες] L τοῦτο δράντες Ρ 8 εὑρίσκειν πειρώμεθα] L εὑρεῖν έπειράθημεν Ρ 9 τέ είσιν] L είσιν (τινες είσιν ante ras.) Ο || δμορρόφιοι] L δμότροφοι Ρ δμορόφοι Ο όμορρόφιοι Υ || μάλλον] L om. Ο || ὄντες] L om. Ρ 10 ξηρότερον] L ξηρότεροι Ρ || προβάλλομεν] L προβαλλόμεθα Ρ 📗 τὰ θηρία] L τὴν θηριαχὴν Ρ 11 ἀποθνήσκει τὰ μὴ] L ἀποθνήσκειν μὴ Ρ 📗 ὅσα δὲ πέπωκεν] L τα δὲ πεπώκοτα Ρ 12 ἄλλη δοκιμασία τῆς θηριακῆς in marg. L O ἄλλο in marg. Ρ || δ' ένίστε χρή] L δὲ χρή ἐνίστε Ο 📗 εἰ μή ἐστι] L εἰ δὲ μή ἐστι Ο 13 προδίδομεν] L καὶ τῆν θηριακῆν Ρ τῆς θηριακής Ο Q<sup>1</sup> edd. 14 δοθείσης αὐτής] L δοθείσει αὐτή Ρ 15 αὐτῷ] L οὕτω Ρ 15–16 τὴν κάθαρσιν γενέσθαι] L γενέσθαι τὴν κάθαρσιν Ο 16 φάρμακον] L om. P 18 ή] L om. P || αὐτοῦ] Q<sup>2</sup> αὐτῶν L, Q<sup>1</sup> αὐτὸ Ald. || γινομένη] L γιγνομένη Ο || πανουργία] L πανούργοις O ante corr. || οἱ πολλοὶ] L οἱ om. P || δόξη] L δόξει P 19–20 πλείστου άργυρίου] L πλείστου άργυρίου Q<sup>1</sup>- $\omega$ - $\omega$  supra lineam Q<sup>2</sup> πλείστω ἀργυρίω edd. 20 καὶ μὴ καλῶς ἐσκευασμένον] L καὶ καλῶς ἐσκευασμένον ἦ Ald. Crat. κἂν μὴ καλῶς ἐσκευασμένον ἦ Ο Kühn κἂν μὴ καλῶς ἐσκευασμένον Ρ ‖ desinit Ρ ‖ εἰσὶ γὰρ] Q εἰσὶ γὰρ οἳ L 21 οἳ] huc transp. Q<sup>2</sup> || ἐν ὅλω καὶ παντὶ τῷ βίω] L ἐν ὅλω καὶ παντὶ τῷ ἑαυτῶν βίω Ο Ald.

For there is no record either of anyone dying from the bite of one of the wild beasts whose bite is usually fatal, if he immediately drinks the antidote after being bitten, or of anyone dying who drinks it in advance and then not long afterwards is bitten and gets a strong enough dose to kill; and so rulers having the power of life and death and therefore wishing to judge the drug, to see if it can do as is claimed, often test it on people already condemned to death for wicked and illegal acts; we being unable to test it on men, do the same on certain other living beings and try to arrive at a true verdict on the drug. For we take cocks—not those that live with us under the same roof, but rather wild ones, and with a rather dry constitution—and we put poisonous beasts among them, and those who have not drunk theriac die immediately, but those who have drunk it are strong and stay alive after being bitten. It is sometimes necessary to test the drug to see if it is adulterated, and we do this in this way: we administer one of the drugs which have the power of purging by way of the stomach, after previously administering theriac: and whenever the person taking it is not purged despite taking the purgative drug we judge the antidote he has taken to be of the best quality since it prevented purgation in the man who had taken the purgative; so through this test we are never deceived about identifying the genuine drug. For there is much trickery practised about the drug by tricksters, and the majority, deceived by the mere reputation of the drug, getting it from those who practise the art for profit, buy it at the highest price even though it is not properly prepared. For there are healthy men who take it without interruption throughout their whole life, especially those who because of the ill-omened and base nature of their life do not live free from care έπιβουλεύεσθαι τὴν ὑποψίαν τοῦ ῥαδίως ὑπὸ τῶν ἐχθρῶν ἀποθανεῖν ἔχουσιν. ἔνιοι δὲ δι' ὠφέλειαν τοῦ σώματος καθ' ἑκάστην ἡμέραν προσφέρονται τοῦ φαρμάκου, ὥσπερ δὴ τὸν θεῖον Μάρκον καὶ ἡμεῖς οἴδαμεν ἐνθέσμως τὲ βασιλεύσαντα, καὶ ἀκριβῶς ἑαυτοῦ διὰ τὴν σύνεσιν τῇ συγκράσει τοῦ σώματος παρακολουθήσαντα, κατακόρως τε, καὶ ὥς τινι τροφῇ χρησάμενον τῶ φαρμάκω. ἐξ ἐκείνου γὰρ καὶ μᾶλλον δεδόξασται 5

- 217 τὸ φάρμακον, καὶ εἰς τὸ φανερὸν τῷ φαρμακῷ. ἐς εκείνου γαρ και μανιον σεοσιασται 5 217 τὸ φάρμακον, καὶ εἰς τὸ φανερὸν αὐτοῦ τοῦς ἀνθρώποις ἡ δύναμις τῆς ἐνεργείας ἐλήλυθε. τῆ γὰρ περὶ τὸν βασιλέα γενομένῃ ὑγιεινῆ καταστάσει τὴν πίστιν τῆς ἀφελείας ἡ ἀντίδοτος μᾶλλον προσείληφεν. ἀλλ' ἐπὶ μὲν ἐκείνου τοῦ βασιλέως μόνον αὐτῆς τὸ ἔργον εἰς τὴν γνῶσιν τῶν εἰδότων κοινὸν ἦν, ἐπὶ δὲ τῶν νῦν μεγίστων αὐτοκρατό
  - ρων ή χρήσις εἰς τὸ κοινὸν ἔφθασε. πᾶσι γὰρ ἡμῖν ἔξεστι τοῖς παρ' αὐτῶν κεχρήσθαι 10 καλῶς καὶ θεραπεύεσθαι ἀφθόνως, ἄλλου παρ' ἄλλου λαμβάνοντος τὸ φάρμακον, ἐπεὶ μὴ μόνον τῷ παρὰ θεῶν ἔχειν τὸ βασιλεύειν ὑπερέχουσιν ἀπάντων, ἀλλὰ καὶ τῷ τῶν ἀγαθῶν ἁπάντων ἅπασι μεταδιδόναι ἡδέως, ὥσπερ καὶ αὐτοὶ οἱ θεοὶ, ἐν τῷ ἴσῳ καὶ τοσοῦτον τὴν εὐφροσύνην ἔχοντες, ἐν ὅσῳ περ καὶ οἱ ἀπ' αὐτῶν διασωζόμενοι διατί-
- θενται, καὶ νομίζοντες τὸ μέγιστον εἶναι τῆς βασιλείας μέρος τὴν τοῦ κοινοῦ σωτηρίαν, 15 ὅπερ δὴ καὶ μάλλον ἐπ' αὐτῶν τεθαύμακα. οὐ γὰρ περὶ τοῦτο τὸ φάρμακον μόνον τὴν σπουδὴν ἔχουσιν, ἀλλ' οὕτως εἰσὶ περὶ πάντα φιλότιμοι, ὡς εἴ ποτέ τινι ἡμῶν τῶν 218 φίλων αὐτῶν χρεία γένηται, θαυμαστὸν ὅπως ἐξ ἑτοίμου, καὶ μετὰ πολλῆς τῆς προθυμίας κοινωνοῦσι τῶν φαρμάκων. οὐ γὰρ περιμένοντες τὴν ἀνάγκην τῆς χρήσεως,
- τότε καὶ σκευάζουσιν αὐτὰ, ἀλλὰ πρὸς τὸ τάχος τῆς τῶν καιρῶν ὀξύτητος ἑτοίμην καὶ 20 τὴν παρασκευὴν αὐτῶν φιλοκάλως ἔχουσιν. ὁπότε γοῦν, καὶ διὰ τὸ σεμνὸν τοῦ ἤθους καὶ διὰ τὴν ἐν τοῖς ῥητορικοῖς λόγοις Ἀντίπατρος, ὁ τὰς Ἑλληνικὰς ἐπιστολὰς αὐτῶν πράττειν πεπιστευμένος ἐντελῆ παιδείαν μεγάλως ὑπ' αὐτῶν τιμώμενος, τῆ νεφριτικῆ διαθέσει περιπεσὼν, δεινὰ καὶ ἀνήκεστα ὑπὸ τοῦ πάθους ἔπασχεν, ἀξιέπαινον αὐτῶν εἶδον τὴν περὶ τοὺς φίλους εἰς τὸ σώζεσθαι σπουδὴν, καὶ θαυμαστὴν τὴν περὶ 25 τὴν ἰατρικὴν φιλοτιμίαν. οὕτω γὰρ πρὸς τὸ ποικίλον καὶ διάφορον τῶν συμπτωμάτων ἐνιστάμενοι ἀντηγωνίζοντο τῷ πάθει διὰ τῶν καλλίστων φαρμάκων, ὡς τῶν ἰατρῶν οἱ ἄριστοι, καὶ τὸν πάντα βίον περὶ τὴν ἄσκησιν αὐτῆς ἦσχολημένοι.

<sup>7</sup> Ant. I XIV 24 14–18

<sup>1</sup> ὑποψίαν] L ἀποψίαν Q<sup>1</sup> ὑ supra lin. Q<sup>2</sup> || incipit P || ἕνιοι δὲ] L ἕνιοι δὲ xaì O P 2 προσφέρονται] L μεταλαμβάνειν P 3 τὲ] O P ποτὲ L edd. || βασιλεύσαντα] L βασιλεύοντα O P 3–4 ἑαυτοῦ] L αὐτὸς P 4 συγκράσει] L κράσει P 5 χρησάμενον] L χρησάμενος P || γὰρ] L om. P 6 αὐτοῦ] L αὐτὸ P 7 περὶ] L ἐπὶ edd. || γενομένη] L γιγνομένη O 8 desinit P 9 τῶν νῦν] L τῶν νῦν ἡμῶν O 10 κεχρῆσθαι] L χρῆσθαι O μη χρῆσθαι N 12 τῷ] L τὸ O || τῷ] L om. O 14 τοσοῦτον] L Q<sup>1</sup> τοσούτῷ O edd. 15 τὸ] L om. O 17 τινι] Q<sup>2</sup> τινος L O Q<sup>1</sup> || ἡμῶν] conieci ὑφ' ἡμῶν L Q<sup>1</sup> del. Q<sup>2</sup> ὑφ' ὑμῶν O 18 αὐτῶν] L Q<sup>1</sup> αὐτοῦ Q<sup>2</sup> || γένηται] L γένοιτο edd. || τῆς] L om. O 20 καὶ] L om. O

but always have the suspicion that they could easily die at the hands of those who plot against them. And some take the drug every day for the good of their body; we know that the divine Marcus Aurelius who lately reigned righteously over us, who because of his intelligence paid close attention to the constitution of his body, used the drug greedily and as if it were a food. For because of him the drug became more widely known and the power of its action became clearer to men. For from the state of health which the emperor acquired, the antidote gained increased faith in its power. But under that emperor the fact of its use was known only to those with experience in such matters; but under our present great emperors its use has spread and become general. For we can all use what we generously receive from them and be ungrudgingly cured, one receiving the drug from another; since they excel above all others not only in having received kingship from the gods, but also in the way they gladly give everyone a share in all good things, like the gods themselves, getting as much joy themselves as those who are saved by them, and thinking that the greatest part of kingship is the common safety-which I have admired even more in them. For not only do they set great store by this drug but they are all in things such lovers of honour that if ever one of us, their friends, develops a need for it they share their drugs with them with incredible alacrity and enthusiasm. For they do not wait until the need for their use arises and then prepare them, but with a view to the speed with which an acute need for their use arises, for the love of virtue they have an adequate supply ready. So when Antipater their principal Greek Secretary, greatly revered by them because of the dignity of his character and his great skill in rhetoric, fell ill with a condition of the kidneys and suffered terribly and unbearably, I observed their praiseworthy love of saving their friends and their admirable love of honour in the art of medicine. For they resisted the variable and differing symptoms and fought the disease with the finest drugs, like the best doctors who have spent their whole lives practising the art.

τὴν δὲ πάντα μοι φιλτάτην Ἀρρίαν, καὶ αὐτὴν ὑπ' αὐτῶν ἐξόχως ἐπαινουμένην, διὰ 219 τὸ φιλοσοφεῖν ἀκριβῶς, καὶ τοῖς Πλάτωνος μάλιστα χαίρειν λόγοις, ἀνέσωσἀν ποτε νοσήσασαν οὐ παρέργως καὶ τὸν στόμαχον ἐκλελυμένον ἔχουσαν, καὶ κειμένην οὕτως ὑπτίαν, ὡς μηδὲ τὰς τροφὰς δύνασθαι λαμβάνειν, καὶ διὰ τοῦτο εἰς τὸν τῆς ἀτροφίας κίνδυνον ἐλθεῖν ὅτε δὴ καὶ ὡς οἱ ἐμπειρότατοι τῶν ἰατρῶν ἐθεράπευσαν τὴν γυναῖκα, 5 ὑποδείξαντος ἐμοῦ, τὸν ἀψινθίτην οἶνον παρασχόντες αὐτῇ πιεῖν· πιοῦσα γὰρ εὐθέως ἀνερρώσθη τε τὸν στόμαχον, καὶ ταχέως ἀπείληφε τῆς ὀρέξεως τὸ ἔργον. τὸ δ' ἐπὶ τοῦ σοῦ παιδὸς γενόμενον εἰκὸς ὅτι καὶ μνημονεύεις ἔτι. ὁπότε γὰρ γενομένης τῆς ἀποστάσεως σὺ μὲν, ὡς χρηστὸς πατὴρ, ὀκνηρότερον εἶχες πρὸς τὴν τομὴν, ἤπειγε δὲ ὁ καιρὸς ἀποκριθῆναι τὸ ἐγκείμενον ὑγρὸν, δόντες αὐτοὶ τὸ φάρμακον ἀπήλλαξαν 10 ἡμᾶς τῆς μεγάλης ἐπ' αὐτῷ φροντίδος· ἐπιτεθεῖσα γὰρ ἡ ἔμπλαστρος διεῖλε μὲν τὸ ἐπικείμενον σῶμα ὀξύτερον τῆς τομῆς, ἐκένωσε δὲ πῶν τὸ ὑγρὸν τὸ ὑποκείμενον, ὡς μηκέτ' ἔχειν διὰ τοῦτο τὸ παιδίον τὰς ἀληδόνας.

220 III. Ταύτην οὖν ἔχοντες περὶ πάντα τὰ φάρμακα, ὡς ὁρậς, τὴν βασιλικὴν φιλοκαλίαν, εἰκότως καὶ τὴν θηριακὴν σκευάζουσιν ἐπιμελῶς, καὶ Ἐν ἕκαστον ὧν μιγνύουσιν ἀκρι- 15 βῶς δοκιμάζοντες αὐτοὶ, ὡς μηδὲν παρορậν, καὶ διὰ τοῦτο θαυμαστῶς τὴν ἀντίδοτον ἀποτελεῖν τὰ ἔργα. καὶ γάρ ἐστιν, ὡς οἶδας, ποικιλίαν ἔχουσα τοῖς μίγμασι καὶ πολυ- ειδῆ τὴν χρῆσιν ἐν τοῖς ἔργοις. τεθαύμακα γοῦν ἐγὼ τὸν πρῶτον ποιησάμενον αὐτῆς τὴν σκευασίαν. καί μοι δοκεῖ μήτ' ἀλόγως, ἀλλ' ἀκριβεῖ τινι λογισμῷ, καὶ βεβασανι- σμένῃ πάνυ τῆ φροντίδι πεποιῆσθαι αὐτῆς τὴν σύνθεσιν.

<sup>1</sup> ἐξόχως] post αὐτὴν transp. O 7 ἀπείληφε] L ἀπείληφον O || incipit P || τὸ] L ὅτι P 8 τοῦ σοῦ παιδὸς] L τοῦ παιδὸς τοῦ σοῦ P 9 σὺ μἐν] L οἶμαι P 10 δὲ] L om. O || ὁ καιρὸς] L Ald. om. Q<sup>1</sup> 12 ἐκένωσε] L ἐκκένωσε Q<sup>1</sup> || τὸ ὑγρὸν τὸ ὑποκείμενον] L τὸ ὑποκείμενον πύον O || ὑγρὸν] L πύον P 13 τὸ] L om. Y || διὰ τοῦτο post παιδίον transp. O P; διὰ τοῦτου P || desinit P 14 πάντα] L ταῦτα O Ald. 15 ὧν μιγνύουσιν] L τῶν μιγνυμένων O 17 incipit P || ἐστιν] L om. P || ποικιλίαν] L ποικίλον O || ἔχουσα] L ἔχουσι P || μίγμασι] L μήγμασι P σμήγμασι V W 18 χρῆσιν] L χρείαν P || γοῦν] L γάρ O 19 τὴν σκευασίαν] desinit P || καὶ] L om. O

In the case of my dearest Arria, who is also greatly praised by them because of the accuracy of her philosophical reasoning and the great pleasure she derives from the writings of Plato, they saved her once when she was terribly ill and had a loosened stomach and was lying knocked so flat that she could not even eat and was in danger of starvation, and they like the most skilful doctors were treating the woman under my supervision, giving her wine prepared with wormwood to drink. For as soon as she had drunk it she was strengthened in the stomach and quickly recovered her appetite. And I expect you still remember what happened in the case of your son; for then, when the inflammation happened, you like a good father were rather hesitant about the use of the knife, but the crisis forced us towards the draining of the fluid, and they by giving the drug relieved us of our concern about him. For when the plaster was applied it separated the adjacent part of the body quicker than the knife and drew off all the underlying fluid, so that the boy no longer had any pain from it.

III. So because they have, as you see, this kingly love of excellence regarding all drugs, naturally they are careful in preparing theriac, and keep accurate account of each ingredient, so that nothing is overlooked, and because of this the antidote does its job admirably. For as you know the antidote has variety in its preparation and a multitude of uses and I for one have a deep admiration of the first man to prepare it. And I do not think he hit on it irrationally, but by close reasoning and a thoroughly well-tested plan he managed to achieve its composition. ού γὰρ ὥσπερ οἱ ἀπὸ τῆς ἐμπειρίας ἰατροὶ ἄνευ λόγου τοῦ κατὰ τὰς φύσεις ἕκαστον ἀτέχνως ἰατρεύοντες αἰσχρῶς τὰ μὲν ἐξ ὀνειράτων, τὰ δὲ καὶ παρ' αὐτῆς τῆς τύχης λαβεῖν φασιν εἰς τὴν τέχνην τὰ φάρμακα, οὕτω καὶ ἡμεῖς περὶ τὴν ἰατρικὴν σπουδάζομεν, ἀλλ' ὅσα μὲν ὁ λόγος αὐτὸς πρῶτος καὶ μόνος ἐξευρίσκειν δύναται, ταῦτα ἀκριβῶς παντὶ τῶ λογισμῶ ζητοῦντες φιλοπόνως εὑρίσκομεν, ὅσα δὲ εὑρεῖν ἀδυνα- 5

- 221 τεῖ, ταῦτα διὰ τῶν αἰσθήσεων τῆ πείρα κρίνομεν, πολλάκις μηδ' αὐτῆ μόνῃ καὶ μιῷ τῆ αἰσθήσει πιστεύοντες αὐτῶν ποιεῖσθαι τὴν κρίσιν· οὔτε γὰρ τὴν τίτανον, ὅτι λευκή ἐστιν ὥσπερ ἡ χιὼν, τῆ ὄψει μόνον ὡς ψύχουσαν κρίνειν αὔταρκες εἶναι νομίζομεν· οὔθ' ὅτι τὸ ῥόδον, διὰ τὸ ἐρυθρὸν εἶναι, διὰ τοῦτο καὶ θερμαίνειν αὐτὸ εὐθέως πεπείσμεθα, ἀλλ' ἅμα τῆ ὄψει καὶ τὴν αἴσθησιν τῆς ἁφῆς προσπαραλαμβάνοντες τὴν μὲν, 10
  - ότι θερμαίνειν μέχρι τοῦ καίειν ἀδιαψεύστως εὑρίσκομεν, τὸ δὲ ῥόδον ἀντιπαραλαμβανόμενοι τῆς ἐπ' αὐτοῦ ψύξεως, ὅτι τῶν ἐμψυχόντων ἐστὶν, ἀκριβῶς ἐπιστεύσαμεν. καὶ οὕτω λοιπὸν ἀκριβῶς ἑκάστου τῶν φαρμάκων τὴν δυνάμιν διὰ τῆς αὐτῆς αἰσθήσεως κρίνοντες εὑρίσκομεν, τὸ μὲν ὅτι τόδε ἐστὶν ἀλμυρὸν, ἢ ὀξὺ, τὸ δ', ὅτι πικρὸν,
- ἢ γλυκύ, τῆ γεύσει δοκιμάζοντες αὐτά· τὸ δ' ὅτι τὸ μὲν θερμαίνει, τὸ δὲ ψύχει, καὶ 15 ἄλλο ὑγραίνει, ἕτερον δὲ ξηραίνει, ἡ διὰ τῆς ἁφῆς ἀντίληψις γνωρίζειν ἡμῖν παρέσχε.
  πολλὰ δ' αὐτῶν διὰ τῆς ὀδμῆς κρίνειν ἐπινοοῦμεν, καὶ τὸ μὲν εὔτονον τῆς δυνάμεως ἐκ
  222 τοῦ πληκτικοῦ τῆς ἀποφορᾶς εὑρίσκομεν, τὸ δ' ἄτονον τῆς ἰσχύος διὰ τῆς ἐκλύσεως
  τοῦ ὀσφραντοῦ. γνωρίζομεν δ' εἰ δόκιμόν τε καὶ μὴ, κριτήριον τῶν ἁπλῶν φαρμάκων
- τὰς ἑαυτῶν αἰσθήσεις ποιησάμενοι, καὶ ταύταις αὐτὰ πειράσαντες τὸ πρῶτον, καὶ διὰ 20 τῆς χρήσεώς τε καὶ αἰσθήσεως τὸ πιστὸν αὐταῖς ἐργασάμενοι, οὕτω λοιπὸν προσάγοντες τῇ πείρᾳ τὸν λόγον, καὶ εἰς πάντα ὁδηγῷ τοὑτῷ χρώμενοι, καὶ τοῖς ἀπλοῖς φαρμάκοις δεόντως χρώμεθα, καὶ τὴν σύνθεσιν αὐτῶν τῇ τοῦ λόγου τέχνῃ ἀρίστην ποιοὑμεθα. ἐκμαθόντες γὰρ ἑκάστου τῶν παθῶν τὴν φύσιν, καὶ τὸ πολὺ καὶ διάφορον τῆς τῶν ἀπλῶν κράσεως εἰδότες, οὕτω σκευάζομεν τὰ σύνθετα τῶν φαρμάκων ἑκά-25 στῷ τῶν νοσημάτων, τὸ συμφέρον διὰ τῆς ποικίλης αὐτῶν σκευασίας ποιοὑμενοι, καὶ πρὸς ἕκαστον τῶν ἀνθρώπων, ὅπως αὐτῷ κατεσκεύασται τὸ σῶμα, διὰ τοῦ τρόπου τῆς φαρμακείας ἐντέχνως ἀρμοσάμενοι·

<sup>2</sup> Comp. Med. Gen. I: XIII 366.2–7 Adv. Jul. XVIIIA 250.2–6. 7 SMT I: XI 382.1–384.8 SMT II: XI 465

<sup>1</sup> οὐ γὰρ] *incipit* P || τοῦ κατὰ τὰς φύσεις] L τοῦ κατὰ φύσιν P τοῦ *om*. Chart. Kühn 2 ἀτέχνως]  $Q^2$  ἀτελώς L O P Q<sup>1</sup> 3 τὰ φάρμακα] *desinit* P || περὶ] L *om*. O 4 ἐξευρίσκειν] L εὑρίσκειν O 7 ὅτι] L ὅτε O 8 μόνον] L μόνη O 11–12 ἀντιπαραλαμβανόμενοι] L ἀντιλαμβανόμενοι O 13 ἀκριβῶς] *explicit* O 19 γνωρίζομεν] L γνωρίζωμεν Kühn 22 τούτω] L *om*. Q<sup>1</sup> *edd*.

For we do not practise medicine like the Empiricist doctors who treat each patient without reasoning concerning nature and unskilfully, and disgracefully boast that they use drugs in their art sometimes as the result of dreams, sometimes as a result of pure chance; but for things which reason itself first and alone can find, these things we find by searching diligently with all our power of reason; those things which reason cannot find we judge through the senses and by experience, often not even trusting one single type of perception on its own to make a judgment about them. For in the case of quicklime, just because it is white like snow we do not think it satisfactory to judge that it has a cooling effect on the basis of sight alone; and just because a rose is red, we do not for that reason immediately conclude that it is also warming, but we use in addition the sense of touch as well and make the accurate finding that quicklime warms up to the point of burning, but comparing the coldness of the rose by contrast we correctly concluded that it belongs to the class of cooling things. And so for the rest we judge and find the power of each of the drugs by the same perception, for instance: this is salty, or sharp-tasting, this is bitter or sweet, judging them by sense of taste; but it is understanding gained by the sense of touch which enables us to know that this is warm, that is cold, or one thing is wet, another dry. And we know how to distinguish many of them by smell and in one case we recognise the vigour of its power by the overpowering smell it gives off, in another case the feebleness of its potency by the loss of scent. We ascertain the satisfactory quality of each of the simple drugs making the criterion our perceptions of it, first testing the drugs by these perceptions and establishing a trust in them by use and perception, and so for the rest, bringing reason to bear on experience and using it in all respects as our guide, we use simple drugs appropriately and make the best combination of them by the skill of reason. For having learnt the nature of each of the diseases and knowing the number and variety of combinations of simples we prepare combinations of drugs for each of the diseases, doing what is helpful through the variety of preparations of simples, skilfully matching it to each individual and the constitution of his body by the method of the use of drugs.

Ότι τῶν ἀπλῶν φαρμάκων τὰ μὲν ἐξ ὅλης οὐσίας ἀπλῆν τὴν δύναμιν ἔχει τὰ δὲ μικτήν. πολλὴ γὰρ ἐστὶν, ὡς οὐκ ἀγνοεῖς, παροῦσα ἡμῖν εἰς τὴν χρῆσιν ἡ τῶν φαρμάκων περιουσία, καὶ οὕτως διάφορος, ὡς μὴ μόνον αὐτῆς ἐν τῆ συνθέσει τὸ ποικίλον τῆς 223 δυνάμεως ὁρᾶσθαι δύνασθαι, ἀλλὰ καὶ τῶν ἁπλῶν φαρμάκων, τὰ μὲν ἐξ ὅλης αὐτῶν

- τῆς οὐσίας, μίαν τινὰ καὶ ἀπλῆν ἐπιδείκνυται τὴν δύναμιν, ὥσπερ ἡ σκαμμωνία ξανθὴν 5 χολὴν ἕλκουσα φαίνεται, τὸ δὲ ἀπὸ τῆς Ἀττικῆς ἐπίθυμον, τὸν τῆς μελαίνης χυμὸν διὰ τῆς κοιλίας καθαῖρον ὁρᾶται, καὶ ὁ κνίδιος κόκκος τοῦ φλέγματος, καὶ παντὸς τοῦ ὑδατώδους περιφανῶς ἄγωγός ἐστι. ταῦτα γὰρ τὰ φάρμακα ἐκ παντὸς αὐτῶν τοῦ μέρους καὶ ἐξ ὅλης ἑαυτῶν τῆς οὐσίας τὴν ὁλκὴν τῶν χυμῶν τούτων ποιεῖσθαι
  - φαίνεται. μὴ γὰρ πιστεύωμεν Ἀσκληπιάδῃ τῷ ἀπὸ τῆς Βιθυνίας ἰατρῷ, παρὰ τὸν 10 καιρὸν ἐκεῖνον λέγοντι, ὅτε ἤδῃ καὶ ὁ ἄνθρωπος καθαίρεται, τότε καὶ τοὺς χυμοὺς τούτους εὐθέως κατά τινα μεταβολὴν γίγνεσθαι, λέγοντι τὴν γὰρ τῶν ὄγκων τε καὶ πόρων ἐξ ἀρχῆς αὐτῷ γενομένην τοῦ σώματος ὑπόθεσιν, τούτῷ ἀνάγκην ἔχοντι τῆς φύσεως ἀναιρεῖν τὰ ἔργα, ἀκόλουθον ἦν καὶ τοῦτον περὶ τῶν χυμῶν λέγειν τὸν λόγον,
- ώς ἀλόγου καὶ παντάπασιν ἀδυνάτου ὄντος τοῦ ὑπ' αὐτοῦ λεγομένου. τίς γὰρ ἂν 15 224 πιστεύσειε νοῦν ἔχων ἐν τοσούτῷ τάχει ἅμα τῷ προσθίγειν τοῦ σώματος τὸ φάρμακον εὐθέως καὶ τοῦ μέλλοντος ἐκκρίνεσθαι χυμοῦ γίγνεσθαι τὴν οὐσίαν; τίς δ' οὐκ ἂν πεισθείη ῥαδίως τοὺς χυμοὺς τούτους, καὶ πρότερον κατὰ φύσιν εἶναι τοῖς σώμασιν, ὁρῶν τὸν μὲν ἰκτεριῶντα παρὰ τὸν καιρὸν τοῦ λαβεῖν τὸ χολαγωγὸν φάρμακον, ταχέως
  - τε καθαιρόμενον τὴν τοσαύτην χολὴν, καὶ τοῦ πάθους εὐκόλως ἀπαλλασσόμενον; τὸν 20 δὲ ὑδεριῶντα οὐδαμῶς τινι φαρμάκῳ, πᾶν τὸ ἐγκείμενον ὕδωρ τῇ γαστρὶ, ἄμα τῷ λαβεῖν αὐτίκα μάλα κενούμενον, καὶ ἐκ τῆς τοσαύτης παραχρῆμα κενώσεως, μηδ' ὁτιοῦν, ἢ ὀλίγιστόν γε πάνυ τὸ ὑγρὸν ἐγκείμενον τοῖς σώμασιν ἔχοντα. ἀλλὰ ταῦτα ὁ μὲν Ἀσκληπιάδης παιδαριωδῶς τῇ ἀνάγκῃ τοῦ δόγματος δουλεύων, ὡς ἔφην, διὰ τὸ φιλόδοξον, οὐ προσποιεῖται βλέπειν, καὶ πάντα μᾶλλον πιθανῶς πλαττόμενος 25 εὑρίσκειν βούλεται, ἤπερ ἑκάστου τῶν φαρμάκων τὸ οἰκεῖον τῆς δυνάμεως φιλαλήθως ὁμολογεῖν.

**<sup>5</sup>** *Nat.Fac.* I: II 42.18–43.3. **6** *MM* XIV: X 977.7–8 **7** *SMT* III: XI 612.10–11 *Nat. Fac.* I: II 42.5–11 **10** *El. Ex Hipp.* II: I 499.1–501.11

<sup>1</sup> ὅτι των ἀπλῶν … μικτήν.] L desunt in edd.; in marg. in Q<sup>1</sup> 10 πιστεύωμεν ] L πιστεύομεν Q<sup>1</sup> edd. 12 λέγοντι ] L del. Q<sup>2</sup> διὰ add. in marg. Q<sup>2</sup> 16 προσθίγειν ] L προσάγειν Crat. 23 ἔχοντα ] Chart. ἔχοντι L Ald.

That some of the simple drugs have a single power arising out of their complete nature, others a mixed power.

For as you know there is great abundance of drugs available for our use, and so different that one can see the variety of effect of this abundance not only in the synthesis of complex drugs but also in the case of simples: some exhibit one single effect from their whole nature; for instance scammony obviously draws out yellow bile, Cuscuta Epithymum from Attica is seen to purge the humour of black bile through the intestines, and Cnidos berry very clearly purges phlegm and draws out any watery substance. These drugs clearly, as a result of every part of themselves and by their whole nature, bring about the drawing out of these humours. For let us not believe Asclepiades the doctor from Bithynia when he advanced the ad hoc argument that when the man is purged, at that instant these humours come into being according to some change; for because he started the hypothesis of masses and pores which make up a body, and therefore needed to destroy the works of nature, it was no surprise that he pronounced this theory of the humours, since what he says is irrational and altogether impossible. For what man who had any intelligence would believe that so suddenly, immediately on the drug coming into contact with the body, the humour which was about to be secreted would spring into being? Who would not be easily persuaded that these humours exist in the body according to nature beforehand, seeing the jaundice sufferer at the time of taking a cholagogue quickly being purged of so much bile and being pleasantly relieved of his suffering? Or the man with dropsy who, when no medication is administered, has all that water lying in his stomach, but as soon as he takes some is immediately emptied of a large part of it, and from that great and immediate emptying has either no water at all or only the tiniest quantity left in his body? But Asclepiades, childishly enthralled by the requirements of his theory, and because of his vanity, pretends not to see these things, and prefers to find everything as he has persuasively falsified it rather than to admit honestly that each drug has its own specific power.

ήμεῖς δὲ ταῦθ' ὁρῶντες, καὶ τῷ λόγῳ τῆς ἑκάστου φύσεως τῶν φαρμάκων, τὸ οἰκεῖον τῆς δυνάμεως φιλαλήθως ὁμολογεῖν τὸ δυνατὸν εἰδότες, κἀνταῦθ' ὅτι φάρμακα 225 φυσικῆ τινι δυνάμει ἕλκειν τὰ οἰκεῖα πέφυκεν ἀκριβῶς ἐπιστάμεθα, ὥσπερ καὶ ἐν τῷ τὴν Μαγνῆτιν λίθον ἕλκειν τὸν σίδηρον εἰς ἑαυτὴν, δύναμίν τινα ἑλκτικὴν εἶναι αὐτῆ, τὴν ἔμφυτον δύναμιν εὐλόγως ἑαυτοὺς ἐπείσαμεν. θεὸς γὰρ οὖσα ὥσπερ ἡ ἐν 5 ἡμῖν φύσις, κατὰ τὸν Ὅμηρον, καὶ ἄγουσα τὰ ὅμοια πρὸς τὰ ὅμοια, οὕτω τὰς θείας δυνάμεις ἑαυτῆς ἐπιδείκνυται.

IV. Καὶ τῶν ἄλλων δὲ ἀπάντων τὴν φύσιν φιλοτίμως ἐξετάζομεν, ἵνα καὶ τὴν δύναμιν αὐτῶν καθ' ῆν ἐνεργεῖ ἀκριβῶς ἐκμάθωμεν. εὑρίσκομεν γοῦν ἐν τῆ ἐξετάσει αὐτῶν γενόμενοι τὰ μὲν, ὡς ἔφην, καθ' ὅλας ἑαυτῶν ἐνεργοῦντα τὰς οὐσίας, τὰ δὲ καὶ μικτὴν 10 ἐν τῆ οὐσία τὴν δύναμιν ἔχοντα καὶ ðιπλῆν ἀποτελοῦντα τὴν ἐνέργειαν οὕτω φανερῶς πολλάκις, ὡς καὶ τὰ ἐναντιώτατα ὑπ' αὐτῶν ἐπὶ τοῦ σώματος γιγνόμενα ἡμᾶς βλέπειν,
226 καὶ θαῦμα τοῖς ὁρῶσι τὸ τοιοῦτον εἶναι δοκεῖν. λαπάθου γοῦν εἴ τις μὲν τὰ φύλλα φάγοι, τὴν κοιλίαν ἐκταράσσεται· εἰ δέ τις τὸ σπέρμα λάβοι, ἐπεχομένην αὐτὴν ἔχει. ὁμοίως δ' οὖν καὶ ὁ τῆς κράμβης χυλὸς καὶ τῶν γερόντων ἀλεκτρυόνων ὁ ζωμὸς καὶ τῶν ἀπὸ 15 τῆς θαλάττης κοχλιῶν οἱ χυμοὶ ληφθέντες ἐκταράσσουσι τας κοιλίας. τὸ δὲ λάχανον

αὐτὸ ἡ κράμβη, καὶ τούτων αἱ σάρκες ἐσθιόμεναι, ἐπέχουσιν αὐτάς. ἡ δὲ ἀλόη καὶ ἡ τοῦ χαλκοῦ λεπὶς στύφει τε τὰς ὑπὸ τῶν ἑλκῶν ὑπεραυξανομένας σάρκας, καὶ ἐπιξηραίνει πολλάκις τὰ ὑπ' αὐτοῖς γιγνόμενα ῥεύματα, ληφθέντα δὲ διὰ τοῦ στόματος καθαρτικὰ τοῦ ὅλου σώματος γίνονται. τὸ δὲ γάλα διαιρούμενον ὑφ' ἡμῶν ἐναντίας ἐν τῆ χρεία 20 δυνάμεις ἐπιδείκνυται.

**<sup>4</sup>** *Nat. Fac.* I: II 44.13ff. **6** Homer *Od.* 17.217–218 **13** *Alim. Fac.* II: VI 635.6–7 *SMT* VII: XII 56.15–17 **15** *SMT* III: XI 575.6–576.1 *Comp. Med. Loc.* IV: XII 800.15 *Comp. Med. Loc.* VII: XIII 48. 3–4 **16** *SMT* III: XI 576.7–17 **21** *SMT* III: XI 575.3–5

<sup>4</sup> Μαγνήτιν] Kühn μαγνίτην L Ald. Crat. Μαγνίτιν Chart. 5 ή] L om. Q<sup>1</sup> 9 ἐκμάθωμεν] L ἐμάθομεν Q<sup>1</sup> Crat. ἐμάθωμεν Q<sup>2</sup> ἐμάθωμεν Ald. μάθωμεν Chart. Kühn 10 μικτήν] Υ μικτόν L Q<sup>1</sup> edd. 12 ἐπὶ] L Q<sup>2</sup> ὑπό Q<sup>1</sup> 13 καὶ θαῦμα τοῖς ὁρῶσι τὸ τοιοῦτον] L καὶ θαῦμα τοῖς τὸ τοιοῦτον ὁρῶσι Q<sup>1</sup>transp. Q<sup>2</sup> 16 τας κοιλίας] L τὴν κοιλίαν Q<sup>1</sup> edd.

But we, seeing these things and knowing by reasoning on the nature of each of the drugs how to agree on the true potential of the power of that drug, accurately understand that drugs by a certain natural power are naturally able to draw out what is proper for them, just as when the Magnetic stone draws iron to itself because it has a drawing power within it, and we have reasonably persuaded ourselves of its innate power. For our nature is like a kind of god in us, as Homer says, and draws like to like and so demonstrates its own divine powers.

IV. And we diligently investigate the nature of all the other drugs so that we may learn accurately their powers according to which they take an effect. And we find in our investigation that some, as I have said, have effect according to their whole being, while others have a mixed power in their being and have a twofold effect, often so markedly that we see them having opposite effects on the body, which seems miraculous to those who observe it. For example: if someone eats monk's rhubarb [Rumex Patientia] it upsets his stomach; but if someone eats the seed of this plant it binds his bowels up. Similarly, the juice of cabbage and soup made of old cocks and the juice of sea snails when taken upset the stomach. But the vegetable cabbage itself, and the flesh of the others when eaten, bind up the bowels. And aloe and copper flakes draw together the proud flesh that grows out of wounds and often dry up the fluid which seeps under them, but when taken by mouth they become purgatives of the whole body. And milk when separated by us exhibits opposite powers in its use.

ό μὲν γὰρ ὀρρὸς αὐτοῦ πινόμενος ἐκλύει τὴν γαστέρα, ἐσθιόμενος δὲ ὁ τυρὸς ἐπέχει αὐτὴν ἀκριβῶς. ἕνια δὲ οῦτως τι παράδοξον ἐργάζεται ἐν τῆ μίξει τῶν ἐν αὐτῆ μιγνυμένων δυνάμεων, ὡς καὶ ἀδύνατον εἶναι γενέσθαι τοῖς ἀκούουσι δοκεῖν, εἰ μὴ τὴν γινομένην διὰ τῆς ὄψεως πίστιν παρὰ τοῦ γινομένου λάβωσι. τὸ γοῦν τρίφυλλον ἡ

- 227 βοτάνη, ήτις ὑακίνθῳ ὡμοίωται, ὁπόταν τοῦ ἔαρος ἐγκύμων γένηται, καὶ τὸ σπέρμα 5 ὅμοιον ἔχῃ τῆ ἀγρία κνίκῳ, ὅταν τις ἀφεψήσῃ πάνυ, εἶτα τῷ δήγματι τοῦ φαλαγγίου ἢ καὶ τοῦ ἔχεως τῷ ὕδατι ἐπαντλήσει, ἰᾶται αὐτὸ καὶ εὐθέως ἀνώδυνον ἐργάζεται. εἰ δέ τις ἐπ' ἄλλου μὴ δεδηγμένου τὸν ὑγιῆ τόπον τῷ αὐτῷ ἐπαντλήσει καταντλήματι, τὴν αὐτὴν αἴσθησιν καὶ τὰς αὐτὰς ὀδύνας ὁμοίας τῷ δεδηγμένῳ πάσας ἀποτελεῖ, ὡς εἶναι τὸ γινόμενον ἀληθῶς θαύματος ἄξιον, τὴν αὐτὴν βοτάνην καὶ ἰᾶσθαι τὸ δῆγμα 10 καὶ ὁμοίως τοῖς θηρίοις διατιθέναι τὸν ὑγιῆ τόπον πονηρῶς. τινὰ δὲ τῶν φαρμάκων τὴν ἀρχὴν οὐδὲ ὅλως ἐστὶ τοῖς ἀνθρώποις σύντροφα. τὸ γοῦν κώνειον τοὺς μὲν ψάρους
- τρέφει καὶ τὴν θανατικὴν δύναμιν ἐπ' αὐτῶν οὐκ ἔχει, ἡμᾶς δὲ, ὡς οὐκ ἀγνοεῖς, ἀναιρεῖ. καὶ ὁ ἑλλέβορος τῶν μὲν ὀρτύγων ἐστὶ τροφὴ, τοὺς δὲ ἀνθρώπους διαφθείρει κακῶς. ἔνια δὲ εὑρίσκομεν καὶ μερῶν τινων ἐν τῷ σώματι τὴν κάκωσιν ἰδίως ποιούμενα. ὁ γοῦν 15 228 θαλάττιος λαγωὸς ἑλκοῖ τὸν πνεύμονα καὶ ἡ κανθαρὶς ἰδίως τὴν κύστιν κακοῖ. πολλὰ δὲ τῶν φαρμάκων πάλιν ἐξαιρέτως τινὰ τῶν μερῶν τοῦ σώματος ὠφελεῖν πέφυκε. πάσχον γοῦν τὸ ἦπαρ πολλάκις εὐπατόριος ἡ βοτάνη ἀγωνιστικῶς ὠφέλησε, καὶ ἡ μυροβάλανος τὸν σπλῆνα ὠνησε. τὸ δὲ σαρξιφαγὲς καὶ ἡ βετονίκη τοὺς νεφροὺς διέθηκε καλῶς, καὶ ὁμοίως ἄλλα ἐστὶν ἄλλων, ὡς τῇ πείρᾳ τετηρήκαμεν, οἰκεῖα 20 φάρμακα, ἅπερ ἡμεῖς, ὡς ἔφην, ἀκριβῶς ἐξετάζοντες οὕτως ἑκάστῳ τῶν παθῶν τὴν κατάλληλον προσφορὰν ποιούμεθα, διδασκάλω καὶ τούτων, ὥσπερ καὶ τῶν ἄλλων

άπάντων, Ίπποκράτει τῷ ἀρίστῳ χρώμενοι.

<sup>4</sup> Paulus Medicus 7.3.18 15 Comp. Med. Gen. I: XIII 364.1–5 Palladius Comm.in Hipp.Epid.VI 2.162.19

<sup>4</sup> τὴν γινομένην] conieci τὴν περὶ τῆς γινομένης L τὴν περὶ τῶν γινομένων N τὴν περὶ τῆν γινομένην Y τὴν περὶ τῆν γινομένην Q<sup>1</sup> τὴν παρὰ τῆν γινομένην Q<sup>2</sup> 15 εὐρίσκομεν] L εὑρίσκωμεν Q<sup>1</sup> 23 Ἱπποκράτει] L rasura illeg. Q<sup>1</sup>, corr. in marg. Q<sup>2</sup>

For the whey when drunk loosens the stomach but when the curds are eaten they close it up completely. And some things have such an unexpected effect in the mixture of powers they contain that it seems impossible to people who hear about it unless they actually see it happening and acquire the belief which comes by way of sight. For example the plant clover, which resembles hyacinth when it sets seed in spring, and has seed very like wild safflower, if someone cooks it completely down and applies it with water to the bite of a spider or snake, heals it and immediately stops the pain; but if someone applies the same lotion to an uninjured place on another man who has not been bitten, it produces exactly the same sensation and all the same pains as in a man who has been bitten-a truly remarkable result, that the same plant both cures the bite, and has exactly the same bad effect on an uninjured area as poisonous beasts do. And some drugs are completely uncongenial to humans. For example hemlock is food for starlings and has no lethal power over them, but as you know it kills us. And hellebore is food for quails but destroys humans horribly. And we find some drugs which produce a deleterious effect on specific parts of the body. For example the sea hare wounds the lung and the blister-beetle specifically damages the bladder. Again, many drugs by their nature preferentially benefit certain parts of the body. Agrimony has often heroically benefited an ailing liver, and Balanites aegyptiaca has helped the spleen. Saxifrage and Paul's betony have had a beneficial effect on the kidneys, and similarly there are other drugs appropriate to other parts, as we have seen by experience, which, as I have said, we have accurately examined, allocating each one as appropriate to each disease, using the most excellent Hippocrates as our teacher in this as in other matters.

ότι γὰρ ἀκριβεστάτην τὴν περὶ τῶν φαρμάκων τέχνην πεποίηται καὶ ἐξ ἄλλων πλείστων ὑπ' αὐτοῦ λεγομένων ἔστιν ἰδεῖν, μάλιστα δὲ ἐξ ὧν φησιν ἐν τῷ β' τῶν ἐπιδημιῶν οὕτω: φαρμάκων δὲ τρόπους ἴσμεν ἐξ ὧν γεγένηται ὁκοῖα ἄττα. οὐ γὰρ πάντες ὁμοίως, ἀλλ' ἄλλοι ἄλλως σύγκεινται, καὶ ἄλλα ὅσα πρωϊαίτερον, ἢ ὀψιαίτερον ληφθέντα, καὶ οἱ διαχειρισμοὶ, οἶον ξηράναι, ἢ κόψαι, ἢ ἑψῆσαι, καὶ τὰ τοιαῦτα, †ἔως τὰ πλεῖστα† 5

- 229 μείω η πλείω και όκοῖα ἑκάστω και ἐφ' οἶσι νοσήμασι, και ἐφ' η τε τοῦ νοσήματος ήλικία, ἰδέα, και διαίτη όκοία, η ὥρη ἔτεος, όκοίως ἄγωμεν, και τὰ τοιαῦτα. διὰ γὰρ τοὑτων, ὡς ὁρậς, καθολικώτερον ἡμᾶς διδάσκει, παραινῶν καὶ τὰς φὑσεις τῶν φαρμά-κων εἰδέναι, καὶ τὸν καιρὸν ἐξετάζειν, ἐν ῷ τις τὸ φάρμακον μέλλει λαμβάνειν, καὶ τὰς κράσεις τῶν λαμβανόντων ἐπιβλέπειν. εἰσὶ γὰρ ὡς ἀληθῶς οἱ μὲν εὐκόλως λαμβάνειν 10 δυνάμενοι, ὡς καὶ πέπτειν αὐτὰ πολλάκις, η κατὰ μηδὲν ὑπ' αὐτῶν κακοῦσθαι, ἀλλ' ἐνίοτε καὶ τροφὴν αὐτοῖς γίνεσθαι αὐτὸ τὸ φάρμακον. ἔνιοι δὲ ἀφυῶς οὕτως ἔχουσι πρὸς τὰς φαρμακείας ὡς μηδὲ τὴν ἀρχὴν αὐταῖς χρησθαι δύνασθαι, ἀποστρέφεσθαί τε αὐτοῖς τὸν στόμαχον καὶ πρὸ τῆς χρήσεως ἐκλύεσθαι ῥαδίως.
- V. Ταῦτα γοῦν, ὡς ἔγωγε νομίζω, καὶ τῶν παλαιῶν ἰατρῶν οἱ ἄριστοι παρ' αὐτοῦ 15
   μαθόντες οὕτως ἀρίστας καὶ τὰς συνθέσεις ἐποιοῦντο τῶν φαρμάκων, ἐκ τῆς ἑκάστου φύσεως αὐτῶν τὴν τέχνην τῆς συνθέσεως ποιούμενοι, καὶ τὰ μὲν ἐπιτεταμένα ταῖς ποιότησιν αὐταῖς, τῆ τῶν ἄλλων μίξει καθαιροῦντες, ὁμοίως δὲ καὶ ἀμβλύνοντες τὰ δριμέα, καὶ ὅλως πρὸς τὴν ἑκάστου λοιπὸν τῶν παθῶν διαφορὰν καὶ τῶν ἀνθρώπων τὴν σύγκρισιν ἐντέχνως τοῖς φαρμάκοις χρώμενοι. διόπερ οἶμαι καὶ ταὐτην τὴν θηρια- 20 κὴν, περὶ ῆς ἡμῖν ὁ πᾶς οῦτος λόγος φιλοτίμως τετεχνολόγηται, ἐκ πλείστων καὶ τῶν καλλίστων φαρμάκων ἐσκεύασαν.

<sup>2</sup> Hp. Epid. 2.3.2

<sup>3</sup> γεγένηται] L γίνεται Smith || ἄττα] L άσσα Smith 4 σύγκεινται] L εὖ κέονται Smith || ἄλλα öσα] L ἄλλοθι Smith 5 ξηράναι] L ἢ ξηράναι Smith || †ἕως τὰ πλεῖστα†] L seclusi ἐῶ τὰ πλεῖστα Smith 6 μείω ἢ πλείω] conieci μειώσει πλείω L abest in Smith || ὁκοῖα] L ὁκόσα Smith || νοσήμασι] L νουσήμασι Smith 6–7 καὶ ἐφ' ἢ τε τοῦ νοσήματος ἡλικία, ἰδέα, καὶ διαίτῃ ὁκοία, ἢ ὥρῃ ἔτεος, ὁκοίως ἄγωμεν, καὶ τὰ τοιαῦτα] L καὶ ὁπότε τοῦ νουσήματος, ἡλικίην, εἴδεα, δίαιταν, ὁκοίῃ ὥρῃ ἔτεος, καὶ ἤτις καὶ ὁκοίως ἀγομένη, καὶ τὰ τοιαῦτα Smith

For it is clear from many of his writings that he developed the most accurate pharmacological skill and most of all from what he says in *Epidemics* book 2: "We know the methods of drugs, and how each kind comes into being: for they are not all made up in the same way, but different ones in different ways, some gathered early and some late, and the ways of preparing them such as drying, shredding, boiling and such things, and whether to give a smaller or larger dose to each patient and in which diseases, and at what stage and appearance of the disease, and lifestyle, and at what time of the year, and how we administer them, and so on, are all different." With these words, as you see, he teaches us more generally, advising us to know the natures of drugs and to examine the occasion for their use and the humours of those who take them. For in truth there are those who can take them easily and digest them frequently, and not be harmed by them at all, but sometimes the very drug becomes a food to them. But others are so unsuited to treatment with drugs that they cannot even begin to take them, and their stomach turns against them and is easily upset even before taking them.

V. So I think the best of the old doctors learnt all this from him and so developed the best combinations of drugs, developing the art of blending from the nature of each drug, rectifying the drugs which are most intense in their own nature by blending them with others, and in the same way blunting those which are sharp and in general for the rest skilfully using drugs with an eye to the different ailments and the composition of human beings. And so I think they created theriac, the subject of this whole ambitiously crafted treatise, from the most and finest drugs. λογισάμενοι γὰρ τῶν πονηρῶν θηρίων τὰ δήγματα ὅτι ἐστὶν ἄφυκτα, καὶ τῶν δηλητηρίων φαρμάκων τὰ συμπτώματα ὅτι ἐστὶ θανατικὰ, προσεπιλογισάμενοι δὲ καὶ τὴν τῶν ἀνθρώπων ἐν ταῖς φύσεσι πολλὴν οὖσαν διαφορὰν, καὶ ὅτι ἀλλο φάρμακον ἀλλῷ ἁρμόζειν πέφυκεν, εἰκότως αὐτῆς ἀκριβῆ τε καὶ ποικίλην ἐποιήσαντο τὴν σκευασίαν, ὡς διὰ τοῦτο καὶ ἀπταίστως αὐτὴν ἐπὶ τούτων ἁπάντων τυγχάνειν τοῦ τέλους, 5 καὶ διὰ τὸ ἀναγκαῖον τῆς χρείας, καὶ περισπούδαστον πάνυ τοῖς ἀνθρώποις γενέσθαι.

- 231 οὐδἐν γὰρ ἐμοὶ τῶν ἐν τῷ βίῳ χαλεπώτερον εἶναι δοκεῖ τῶν δηλητηρίων φαρμάκων καὶ τῶν τούτων δακετῶν θηρίων. τὰ μὲν γὰρ ἄλλα τῶν δεινοτάτων καὶ φυλακὴν ἔχει τὴν ἀπ' αὐτῶν φυγὴν, ταῦτα δὲ τὴν μεγίστην τοῖς ἀνθρώποις ἐπιβουλὴν ἐργάζεται. διὰ γὰρ τὸ ἀφύλακτον τἰς οὐκ εἰδὼς (εἴτε) ἑαυτῶ πολλάκις προσφέρει τὸ φάρμακον, 10
  - ναι γμρ το αφολακτον τις σοκ είσως (είτε/ εαστώ πολιακίς προσφερει το φαρμακός, το και άλλως άγνοῶν, εἴτε δηχθεὶς ὑπό τινος θηρίου αἰφνίδιον τελευτῷ. ἐμοὶ δὲ καὶ ἐξ ἱστορίας τὶς ἐμήνυσε λόγος ὡς ἄρα πολεμεῖν Ῥωμαίοις τὶς ἐθέλων καὶ τὸ δυνατὸν ἐκ τῆς στρατιωτικῆς τάξεως οὐκ ἔχων, ἄνθρωπος δὲ, φησὶ, Καρχηδόνιος οὗτος, ἐμπλήσας πολλὰς χύτρας θηρίων τῶν ἀναιρεῖν ὀξέως δυναμένων, οὕτως αὐτὰ προσέβαλε πρὸς
- τοὺς πολεμίους. οἱ δὲ τὸ πεμπόμενον οὐ νοοῦντες καὶ διὰ τοῦτ' ἀφύλακτοι μένοντες, 15 οὐ γὰρ ἦν τοιαῦτα εἰθισμένα ἐν τοῖς πολεμίοις πέμπεσθαι βέλη, ταχέως πίπτοντες ἀπέθνησκον· καὶ διὰ τοῦτο πολλάκις ὁ ἄνθρωπος οὗτος τῇ τοιαὑτῃ πρὸς τὸ πολεμεῖν πανουργία, ὥσπερ τι καὶ αὐτὸς θηρίον ὑπάρχων, διέφυγε τῶν ἐναντίων τὰς χεῖρας. 232 διόπερ οἶμαι, καὶ εἰς τὰς τοιαὑτας χρείας ὑμῖν τοῖς ὑπερέχουσι καὶ τοῖς τῶν στρατο-
- πέδων ἄρχουσιν, ἀναγκαῖον ἔχειν καὶ τοῦτο τὸ φάρμακον, διὰ τὴν τοῦ πολεμεῖν ἐνίοτε 20 γινομένην ἀνάγκην. πάλαι μὲν οὖν καὶ ἄνευ τῆς τῶν θηρίων μίξεως σκευαζόμενον τὸ φάρμακον ὁμοίως ἐποίει πρὸς τὰ τοιαῦτα καρτερῶς. ἀεὶ δὲ τῶν ἰατρῶν φιλοτίμως πρὸς τὴν κατασκευὴν αὐτῆς ἐχόντων καὶ ἄλλο ἄλλῷ συμμίσγειν ἐπινοούντων, οὕτως τὶς προσεπενόησε καὶ ἔμιξεν αὐτῆ τὰ θηρία. Ἀνδρόμαχος δὲ, φασὶν, οὕτος ἀνὴρ ἦν ἀξιόλογος ἰατρὸς, καὶ οὐ πολὺ πρὸ ἡμῶν γεγενημένος. συνῆν γὰρ τῷ Νέρωνι, ῷ καὶ 25 προσεφώνησε, γράψας αὐτὴν ἐν ἔπεσι, καὶ τὴν ἐπαγγελίαν καὶ τὴν σκευασίαν.

24 Ant. I: XIV 2.14, 32.5 ff.

<sup>7</sup> χαλεπώτερον] Q<sup>2</sup> χαλεπώτατον L Q<sup>1</sup> 8 τούτων] L om. Q ∥ τῶν] om. Q 10 (εἴτε)] conieci 11 εἴτε] conieci εἶτα L 15 τὸ πεμπόμενον] Chart. τὸν πεμπόμενον al. 23 ἄλλω] L om. Q<sup>1</sup> edd. 26 ἐν ἔπεσι] L ἐν om. Q<sup>1</sup> edd.

For reasoning that the bites of vicious animals cannot be avoided and that the effects of harmful drugs are lethal, and further reasoning that there is a wide variety in human constitutions and that one drug naturally suits one man and another another, they reasonably made its recipe precise and complex so that it should unerringly hit its mark in all these cases, and, because of the necessity of its use, should be extremely beneficial to men. For I think nothing in life more dangerous than poisonous drugs and these biting animals. We can protect ourselves from other terrible things by fleeing from them, but these two things present the greatest threat to mankind. For often for want of protection someone either unwittingly takes poison, simply not knowing it for what it is, or is bitten by some wild animal and suddenly dies. I have heard story from history that someone wanted to go to war with Rome but did not have the troops to do it with and this man, a Carthaginian, the story goes, filled many jars with animals whose bite can kill instantaneously and shot them at the enemy. And they did not realise what was being shot at them and were without protection, because these were not the kind of weapon usually shot in war, and quickly fell and died; and so on many occasions this man because of this disgraceful method of waging war, as if he himself were some kind of wild beast, escaped the hands of his enemies. So I think your rulers and the commanders of the infantry should have this drug because of the necessity, from time to time, of going to war. Previously the drug was made without the admixture of wild beasts, but still worked well against such things. But the doctors were always ambitiously working on its preparation and thinking of other things to add to it, and so someone thought about it and put wild beasts in the mix. They say this man was Andromachus, a distinguished doctor living not long before our time. He was a contemporary of Nero to whom he addressed, writing in verse, both the uses claimed for the medicine, and the recipe.

καὶ παραθήσομαί γέ σοι αὐτὰ τὰ ἔπη, ἵνα μηδὲ τούτων ἀνίστορος ἦς, οὕτω φιλόκαλος ὢν, ἐκεῖνο πρότερον εἰπὼν, ὅτι διὰ τοῦτον τὸν ἄνδρα ἐπινοήσαντα μῖξαι τῷ φαρμάκω τὰ θηρία εἰκότως, οὐχ ὅτι μόνον πρὸς τὰ ἀπ' αὐτῶν δήγματα ἁρμόζει καλῶς, θηριακὴ ἂν λεχθείη πρὸς ἡμῶν, ἀλλ' ὅτι καὶ αὐτὰ τὰ θηρία λοιπὸν ἐν τῇ σκευασία μιγνύμενα έχει, προσηκόντως έξ άμφοτέρων των σημαινομένων ἑτοίμως ἂν θηριακή λέγοιτο. 5 233 ἔστι δὲ τὰ ἔπη ταῦτα.

VI. Κλῦθι πολυθρονίου βριαρὸν σθένος ἀντιδότοιο. Καΐσαρ, ἀδειμάντου δῶτορ ἐλευθερίης. κλῦθι Νέρων, ίλαρήν μιν ἐπικλείουσι Γαλήνην, εὔδιον, ἡ κυανῶν οὐκ ὄθεται λιμένων. 10 οὐδ' εἴ τις μήκωνος ἀπεγθέα δράγματα θλίψας, χανδὸν ὑπὲρ στυγνῆς χεῖλος ἔχει κύλικος. ούδ' εἰ κωνείου πλήσει γένυν, οὐκ ἀκονίτου, μέμψαιτο δ' οὐ ψυχρὸν χυλὸν ὑοσκυάμου. ού θερμὴν θάψον τε καὶ ὠκύμορον πόμα Μήδης, 15 οὐδὲ μὲν αἱμηρῶν ἕλκεα κανθαρίδων. οὐ ζοφερῆς ἔχιός τε καὶ ἀλγεινοῖο κεράστου τύμματα, καὶ ξηρῆς διψάδος οὐκ ἀλέγοι. σκορπίος οὐκ ἐπὶ τήνδε κορύσσεται, οὐδὲ μὲν αὐτὴ άσπὶς, ἀδηρίτων ἰὸν ἔχουσα γόων. 20 ού μὲν ἀπεγθόμενος καὶ πτύας ἀντιάσειε, καὶ κατὰ φωλειὸν θερμὸς ἔνερθε μένοι. ούκ άλέγοι δρυίναο άναίμακτον δ' ἔχει ἰὸν αίμόρρους, τοιῶ δαμναμένη πόματι.

23 Nic. Th. 411-437

<sup>2</sup> τοῦτον τὸν ἀνδρα ἐπινοήσαντα] L τοῦ τὸ ἐπινοήσαντα  $Q^1$  τὸ τὸν ἐπινοήσαντα  $Q^2$  Crat. Kühn τοῦτο τὸν ἄνδρα ἐπινοήσαντα Υ τοῦτο ἐπινοήσαντα Ald. 11 δράγματα θλίψας] L δάκρυα κεύθοι Ο 12 ἔχει] L έχοι edd. 13 ἀχονίτου] edd. ἀχονήτου L 14 μέμψαιτο δ'] correxi μέμψατο δ' L μέμψεται δ' Τ μέμψεται Ο || ψυχρόν] L ψυχροῦ Ο Τ edd. 21 ἀπεχθόμενος] L ἀπεχθομένοιο Ο || καὶ] L καὶ εἰ Ο Τ || πτύας] Iuvenis δρύας codd. edd. 22 φωλειόν] Ο φολιόν L Q φωλιόν Ald. 23 δρυίναο] Ο δρύινα L δρύινας T

And I will write down for you his very words so that you who are such a lover of excellence should not be ignorant of this bit of history, first saying this, that because of this man who thought of mixing wild beasts with the drug, it is reasonable to think that we call it theriac not only because it is applicable to their bites, but also because it has actual wild animals as part of the recipe, and that either meaning would be good cause to call it theriac. This is his poem:

VI. Hear of the mighty strength of the antidote made of many herbs, O Caesar, giver of fearless freedom. Hear, Nero; they praise it as cheerful Galene, peaceful, which takes no heed of dark harbours. Not even if one ground up hateful handfuls of poppy and held his gaping lip over the vile cup nor if he filled his mouth with hemlock or the juice of aconite or chilly henbane would he find fault with the antidote, nor warm deadly carrot and the quick-killing drink of Medea, nor the wounds of bloody blister beetles. The blows of the dark snake and the terrible horned snake do not worry him, and he has no care for the dry thirst-snake. Against this antidote the scorpion is not armed, nor the asp whose venom causes unconquerable wailing. The hated spitting snake would not oppose him, but stay warm within his cave. He cares nothing for the oak snake, and the blood-snake keeps its venom unblooded, conquered by this drink.

Οὐ μὲν ἀπεχθήεντα φαλάγγια σίνεται οὕτως άνέρα, φρικαλέον δ' ἄχθος ἔθηκε πόνων, ούχ ὕδρος, ούκ ἐπὶ χέρσον, ὅθ' ὕδατα καρκίνος αἴθει βοσκόμενος, θερμης (τ') ἤρξατο πρῶτον ἄλης, χέρσυδρος, θανάτω πεπαλαγμένα χείλεα σύρων, 5 άντόμενος, γλυκεροῦ τέρμα φέροι βιότου. τῆ πίσυνος λειμῶσι θέρους ἐπιτέρπεο Καῖσαρ, καὶ Λιβυκὴν στείχων οὐκ ἀλέγοις ψάμαθον. οὐδὲ μὲν ἀμφίσβαινα φέροι μόρον, οὐδέ τις ἤδη φρύνος ένὶ ξηροῖς βοσκόμενος πεδίοις. 10 ρεῖα δὲ καὶ στομάχοιο φέροις ἄκος οἰδήναντος, καὶ θοὸν ἰήσαις ἆσθμα κυλινδόμενον. "Η όπόταν περί γαστρί κυκώμενον ἔνδοθι πνεῦμα κυμαίνη, κωφὸν κῦμα βιαζόμενον. η ότ' ένι στροφάλιγγι ἀπηνέϊ κυμήνειεν 15 έντερον, ἢ ταναοῦ σφυγμὸν ἔχωσι, κόλου η όπόταν χολόεντες όλον δέμας, έξοχα δ' ὄσσε, Καὶ μερόπων χροιὴν πάμπαν ἀνηνάμενοι, ἴκτερον ἱλάσκωνται ἀπηνέα, μηδ' ἐπὶ θοίνας, εἰ καί σφιν μακρὸν Ζεὺς πετάσειε πέρας 20 νεύοιεν, μοῦνον δὲ κατηφέα θυμὸν ἔχοντες, φεύγωσι σφετέρων ἤθεα κηδομένων. εἰ δέ που ἢ κακοεργὸν ἴδοις ἐπὶ σώμασιν ὧχρον, ρύσαις ύδρηλην νοῦσον ἐπεσσυμένην, καὶ φαέων ἀμβλεῖαν ἄφαρ λάμψειεν ὀπωπὴν 25τῷ, καὶ ἀρχομένης οὐκ ἀλέγοις φθίσιος.

<sup>3</sup> Nic. Th. 411-437

<sup>4 (</sup>τ')] add. Schneider 6 φέροι] Heitsch φέροιο L φέρει Ο 8 ψάμαθον] L ἄμαθον Ο 9 φέροι] Τ φέρει L Ο 12 ἰήσαις] L Τ ἰήσαι' Heitsch ἰήσαιο Ο 16 κόλου] Heitsch κῶλου L Ο κῶλω Τ 17 χολόεντες] Α χολόεντος L Ο χολόενταις Τ 20 πέρας] L τέρας Τ Ο 22 φεύγωσι] L Τ φεύγοντες Ο 23 ἴδοις] L ἴδης Τ Ο || ἐπὶ σώμασιν] L ἐνὶ σῶμα Ο σῶμα Τ 24 ῥύσαις ὑδρηλὴν] L ῥύσεαι ὑδρηλὴν Ο ῥύσαι εὐδρηλὴν Τ

Hateful spiders do not harm such a man, nor subject him to the dreadful pain of suffering, nor does the water snake, nor the Chersudros, feeding on dry land when the crab-star burns the waters and he begins his warm wandering, trailing his lips spattered with death, meeting him, bring an end of his sweet life. Trusting in this antidote enjoy the summer meadows, Caesar, and, going to Libya, do not let the sand worry you. Nor does the amphisbaena bring fate, nor the toad feeding in the dry plains. And you would easily bear the pain of a churning stomach and quickly cure rolling asthma. Or when the wind stirring in your stomach seethes forcing up a dull wave. Or when your stomach tosses in a rough whirlpool or has a throbbing of the long intestine; or when mens' whole body, especially the eyes, is full of bile, and they complete lose the usual the colour of men and appease harsh jaundice; they refuse the feast; even if Zeus were to offer them a great limit of life, they have only a downcast spirit and flee the company of those who would care for them. But if ever you see evil pallor on their bodies you can guard against the onset of the watery disease and illuminate the dull sight of the eyes, and free yourself from fear of an onset of phthisis.

οἴη καὶ τετάνοιο καὶ ἀρχομένοιο τενόντων σπάσματος ἦρε βυθοῦ ἄχθος ὀπισθοτόνου, ἤτ' ἄρα καὶ θώρακος, ὄσην ὠτρύνατο χώρην, λοξὸς ἀναθλίβων πνεύμονα κοῦφον ὑμήν.	
η ότε φρικαλέην τις έχοι περὶ κύστιν ἀνίην	5
ἕλκεος, ἢ καί που δαμναμένοιο πόρου	0
οὗρον ἐπιφράσσοιτο, ὅτ' ἄσχετα πολλάκι καυλὸς	
όρμαίνη κενεήν σεύμενος ές Κυθέρην.	
νεφρών δ' ήνίκα φώτα κατ' ἰξύος ἄλγος ἐπείγοι,	
θαρσήσας τοιαύτην ἐξελάσεις ὀδύνην,	10
καὶ μογερῶν στέρνων ἀπολύσεται ἔμπυον ἰλὺν,	
πινομένη πολλούς μέχρις ἐπ' ἠελίους.	
άλθήσει καὶ λοιμὸν ἀηδέα, πᾶσαν ἐπ' ἡὼ	
δύσπνοον, ἐκ τοίης παρθέμενος πόσιος,	
καὶ κυνὸς ὑδροφόβην γενύων λυσσῶσαν ἐρινὺν	15
φεύξεαι εὐόδμῳ γαῦρος ἐπ' ἀντιδότῳ.	
τῆς δή τοι κυάμοιο, τὸν ἔτρεφεν εὔσκιον ὕδωρ,	
τέλμασι, καὶ πολλοῖς κρυπτόμενον πετάλοις	
Νειλώου κυάμοιο, δίδου βάρος ἄμμιγα χεύας,	
θερμὸν ὕδωρ τρισσῶν κιρνάμενος κυάθων.	20
πίνοιεν δ' ὅτε κοῖτον ἀγοι κνέφας, ἀλλοτε δ' ἠοῦς,	
άλλοτε καὶ διπλῆν ἐς πόσιν ὀρνύμενοι.	
'Ηοῦς μὲν κεράσαιο παρηγορέων κακοῦ ὁρμὴν,	
ὄσσοις ἀλγεινὸς λάμπεται ἠέλιος.	
νυκτιδ' όμως ὄσσοις περ ἐπώδυνος ἕσπεται ὄρφνη,	25
εὐνάστειραν ἔχοις τειρομένων πρόποσιν.	

<sup>1</sup> οἴη] Ο T Chart οἵη L 2 ἦρε βυθοῦ ἄχθος ὀπισθοτόνου] L εὖρεν ἄκος ἄχθους ὀπισθοτόνου T ἢ ῥαιβῶν ἄχθους ὀπισθοτόνου O 3 ἤτ' ἄρα] L ἢ εἰ καὶ O 5 ἔχοι] O ἔχει L ἔχῃ T 7 ἐπιφράσσοιτο] L ἐπιφράσσηται O ‖ ὅτ' ἄσχετα] T O ὅτ' ἔσχετο L ὅδ' ἄσχετα Heitsch 8 ὀρμαίνῃ] T ὀρμὴν ἢ L ὀρμὴν ἤ κεν ἐνησεύμενος O 9 φῶτα] L T πρῶτα O ‖ ἐπείγοι] L T ἐπείγη O 10 θαρσήσας] T θαρρῶν L θαρσήεις O 13 ἀλθήσει] T O ἀλθαίνει L ἀλθαίνει(ς) Heitsch ‖ ἀηδέα] Chart. ἀηθέα codd. 16 φεύξεαι] Heitsch φεύξεται L 18 κρυπτόμενον] L κρυπτόμενος T 19 δίδου] O T διὰ L 20 τρισσῶν] L T τρισῶ O ‖ κιρνάμενος] L κρινάμενος O μ κυάθων] L T κυάθω O 25 ὅσσοις περ] L οἶσί περ O ὁ[...]ισιν T 26 τειρομένων] L τειρομένω T τειρομένοις O

And this drug on its own has removed the pain of the backward-bending weight of tetanus and of the onset of a spasm of the tendons, or of the chest, in the place where the membrane lying across and pressing the tender lung bestirs itself. Or if someone has the horrible distress of a wounded bladder, or his urine is blocked by damage to the passage when the penis often rushes ungovernably to a vain attempt at lovemaking. But when a swift pain of the kidneys oppresses a man around the loins, you will boldly expel such pain and it will free him from festering impurity in his suffering breast, drunk successively over the course of many days. You will heal even a horrible plague bringing shortness of breath by administering such a drink every morning and will put to flight the raving hydrophobic madness of a dog's jaws, delighting in the sweet scented antidote. Take the weight of one bean which the well-shaded water has nourished in the water-meadows, hidden by many petals of the Nile bean, mixing it with three tablespoonfuls of warm water. Drink this when nightfall sends you to bed, or sometimes in the morning, sometimes rushing for a double draft. At dawn, mix eagerly drugs to sooth the onset of pain for as many as a painful sun shines upon. At night, for as many as the dark comes painfully upon, have as a bedfellow for the exhausted a drink of Galene.

ἰοβόλων δ' εἰ καί τις ὑπὸ κραντῆρι δαμείη, ἢ μογερὸν κυανοῦ πῶμα λάβοι θανάτου, ἴσην δ' ἐντύναιο κατ' ὀρφναίην τε καὶ ἠὼ, δαμναμένοις ἱλαρὴν παρθέμενος κύλικα. καί κεν ἀυπνείοντας ἄγοις ἐπὶ κοῖτον ἑτοίμως γηθαλέους ταύτῃ Καῖσαρ ἀνωδυνίῃ.	5
VII. Πρῶτα μὲν ἀγρεύσαιτο κακήθεας ἐμπέραμος φὼς, τολμηρῃ μάρπτων χειρὶ θοοὺς ὄφιας. τοὺς ἤδῃ κρυεροῦ ἀπὸ χείματος, οὐκέτι γαίῃς κρύπτουσι στεινοὶ πάμπαν ἔνερθε μυχοὶ, εἰαρινὴν ἐφ' ἅλωα, χυτὸν βόσκονται ἂν ἄλσος διζόμενοι χλοεροῦ σπέρμα λαβεῖν μαράθρου.	10
όξυτέρην τὸ τίθησιν ἐφ' ἑρπηστῆρσιν ὀπωπὴν, πιαῖνον δειλοῖς ἄλγεα βουπελάταις. τῶν δ' αὐτῶν οὐράς τε καὶ ἰοβόλους ἀπὸ κόρσας τάμνοις, καὶ κενεὰς γαστέρας ἐξερύοις. οῦλα γὰρ ἀμφοτέρῳ φερέει ἐπὶ τύμμασι ἄχθη, λυγρὸν ὑπ' οὐραίην ἰὸν ἔχων φολίδα.	15
τοὔνεκα οἱ τμήσαιο κατ' αὐχένα, ἠδὲ κατ' ἄκρα, ὅσσον πυγμαίης χειρὸς ἔνερθε βάθος. λοίγια δὲ σταλάουσι σὺν αἵματι, τῶν ἀπὸ πέζαν ἐκτὸς ἔχων, ἱλαρὴν δέρξεται ἀντολίην. ὁππότε δὴ τὰ γένοιτο, τότ' ἐν κεραμηΐδι χύτρῃ κατθέμενος πυρσῷ σάρκας ἐπιφλεγέτω, ὕδατος ἐγχεύσας ὅσσον ἄρκιον, ἠδέ τ' ἀνήθου	20 25
κλώνας έχιδναίη σαρκί συνεψομένας.	-3

<sup>1</sup> καί] L T κὲν Ο || κραντῆρι] Schneider γναμπτῆρι L κρητῆρι Ο 2 πῶμα] Chart. πόμα codd. Ald. 5 ἀυπνείοντας] T ἀεἰ πνείοντας L Ο || ἑτοίμως] L T ἑτοίμους Ο 6 γηθαλέους] L γαθαλέους T θηγαλέους Ογηραλέους 13 τὸ] L ὃ Ο || ἑρπηστῆρσιν] T ἑρπιστῆρσιν L ἑρπυστῆρσιν Chart. ἑρπηστῆσιν Ο 14 βουπελάταις] Chart.βουτελάταις L T Ο βουπλάταις Q<sup>1</sup> Ald. 15 οὐράς] L οὐλάς T 16 τάμνοις] L τάμνοι T || ἐξερύοις] L ἐξερύοι T ἐκτανύοις Ο 20 ἔνερθε] L ὕπερθεν T ὕπερθε Ο 22 δέρξεται] Chart. δέξεται codd. Ald. δέρξεαι Heitsch 24 πυρσῷ] T Ο πυρσοῦ L 25 ὕδατος] T Ο ὕδατι R || ἐγχεύσας] L ἐγχεύας T Ο || ἠδέ τ'] καὶ L ἢ καὶ Ο

And if someone is in pain from the jaws of a poisonous snake, or takes a vile drink of dark death, prepare an equal measure for him evening and morning, setting the joyous cup before those who suffer. So, Caesar, you might lead the sleepless rejoicing to their beds with this anodyne.

VII. First let a skilled man hunt the evil creatures, touching with daring hand the swift snakes. Just after chilly winter, the narrow crevices of the earth no longer completely conceal them, on a spring threshing floor they feed on the heaped-up holy ground, seeking the seed of the green fennel. They give a keener sight to the serpents, fattening griefs for wretched beetles. Cut off their tails and poison-shooting heads and draw out their empty bellies. For it carries destructive pains in its bite at both ends, having grievous poison under the scales of the tail. So cut its neck and its tail, taking off the breadth of a hand formed into a fist. Pestilential poisons drip with the blood; he who holds it out away from his feet will see a happy sunrise. Then put it in a ceramic pot and heat its flesh on a fire, pouring on as much water as required, and branches of dill boiled up with the snake flesh.

ήνίκα δὲ σκολιαί γε ἀπορρείωσιν ἀκανθαι, καὶ κακὸν οἰδήνη νῶτον ὕπερθεν ἔχις έκτὸς ἕλοι. ζείοντα καταψύχων κυκεῶνα. ὄφρ' ἑκὰς ἐντύναι σάρκας ἀπεγθομένας έρπηστῶν τ' ἰόεντας ἀπορρίψειεν ἀκάνθας 5 πάμπαν ὑπ' εὐδίφου χειρὸς ἐλεγχομένας. αὐαλέου δ' ἐπὶ τῆσι βαλὼν εὐεργέος ἄρτου, όσσον τερσύναι σάρκα, δύναιτο τροχούς πλάσσασθ' όππότε μίγδα κύτει περιαγέος ὅλμου θλασθή, σκιεροῦ κάτθες ὑπὲρ δαπέδου. 10 αὐτίκα δὲ σκίλλην τρηχώδεος ἄνδιχα φλοιοῦ, σταιτὶ περιπλάσας, θάλπε κατὰ φλογιῆς ὄφρα κεν όπταλέην τε καὶ οὐ σκληρὴν περὶ κόρσην έντύναις σποδιής ήρέμα δαιομένης, καί δ' ὅτε θαλπομένη(ν) ῥήξη σέλας ἔκτοθι πυρσοῦ 15 κάτθεο, καὶ τρισσὴν σαρκὸς ἕλοις μερίδα, όλμοις, καὶ στρυφνοῖο βάλοις δοιὼ ὀρόβοιο, έν δ' ὑπέρω μίξας συνδονέων μυχόθεν αίνυσο, καὶ δινήεντας ἀνάπλασσε τροχίσκους, τοὺς δ' ἑκὰς ἠελίου ψύχεο τερσομένους 20 τῶν δ' ἤτοι δραχμὰς μὲν ὑπὸ πλάστιγγος ἀφέλκοις δοιὰς, τὴν πέμπτην παρθέμενος δεκάδα, ήμισυ θηρείοιο βαλών τροχοειδέος άρτου, καὶ δολιχὸν σταθμῷ τόσσον ἔχοι πέπερι. ἶσα δ' ὀποῦ μήκωνος ἕλοις, καὶ μάγματος αὕτως, 25μάγματος ήδυχρόου τόσσον ἐφελκομένου.

<sup>4</sup> ἐντύναι] Schneider ἐντύναις Chart. ἐντύναιο L ἐντύνας Τ ἐντείνας Ο 5 ἑρπηστῶν] ἐρπιστῶν T Q<sup>1</sup> ἑρπυστῶν edd. || τ'] L om. T O || ἰόεντας] L ἰόεσσας T 6 ὑπ' εὐδίφου] Τ εὐδίφρου L εὐαδίφους O εὐδίκρου Schneider 7 τῆσι] Τ ταῖσι L O || βαλῶν] Schneider βάλοις codd. 9 πλάσσασθ' ὅππότε] Τ πλάσασθαι δ' ὅτε L 10 θλασθῆ] Heitsch θλασθῆ καὶ Schneider θλασθείη codd. 11 σκίλλην] L O σκίλλης T || τρηχώδεος] Schneider τριχοειδέσιν O τριχώδεσιν R τροχοειδέσιν T || ἄνδιχα] Schneider ἄμμιγα codd. || φλοιοῦ] Schneider φλοιοῖς codd. 14 ἐντύναις] Schneider ἐντύναιο L ἐντείναιο Q<sup>2</sup> Ald. ἐντείναις Chart. 15 θαλπομένη(ν)] Schneider ἕχεις L ἔχοι O 17 ὅλμοις] L ὀλκῆς T O || δοιῶ] Schneider ὄηξαι codd. 16 ἕλοις] Schneider ἔχεις L ἔχοι O 17 ὅλμοις] L ὀλκῆς T O || δοιῶ] Schneider δυοῖν L οἴην T O 20 τοὺς δ'] L τοὺς T O || ψύχεο] L ψύγε T 21 ὑπὸ] L ὑπὲρ T O 22 δοιὰς] L δυὰς O T 23 θηρείοιο] Chart. θηρίοιο R T θηρείης O 24 σταθμῷ] L O σταθμὸν T || ἔχοι] L T ἄγοι O 25 ἕλοις] Heitsch ἔχοι L T O

When the crooked bones fall away and the snake heaves his evil back out, cool down the bubbling mixture so that you can prepare the hated flesh separately and throw away the poisonous spine bones, all picked out by a carefully exploring hand. Add to the flesh enough well-made bread to dry up the flesh, and make round biscuits after you have broken up the mixture in the hollow of a round mortar, putting it on a shaded level surface. Then warm a squill, having peeled off its rough rind and plastered it with spelt flour, over the fire so that it is cooked and not hard around the head as the coals burn gently; and when it is warmed through and you break it open remove it from the fire and put on one side and take a third of the flesh; put this in a mortar with two parts of bitter vetch and finish off by mixing with a pestle from the innermost part and make round cakes and cool them as they dry, out of the sun. Of these take out two drachms weighed on the scales, after adding fifty, and add half of the round bread made from the wild beasts and the same amount of long-stemmed pepper, and the same amount of poppy juice and sweet sediment.

δώδεκα δὲ ξηροῖο ῥόδου δραχμαῖσιν ἰσάζοις φύλλα, καὶ Ἰλλυρίην ἴριδα κατθέμενος, κυανέης μίξαιο μελιπτόρθου γλυκυρίζης τόσσον, καὶ γλυκερῆς σπέρματα βουνιάδος. σκόρδειον καὶ κλεινὸν ὀπὸν μίσγοιο θυώδη, 5 βαλσάμου Συρίης ἔνδοθεν αἰνύμενος. τοῖς δ' ἐπὶ καὶ κιννάμωμον ἰσάζεο, μηδέ σε λήθη άγαρικόν τούτοις ἰσοβαρὲς θέμεναι, ἢ ἔτι καὶ σμύρνης καὶ εὐόδμου κόστοιο καὶ κρόκου, ὃν τ' ἄντρον θρέψατο Κωρύκιον. 10 καὶ κασίην, Ἰνδήν τε βάλοις εὐώδεα νάρδον, καὶ σχοῖνον νομάδων θαῦμα φέροις ἀρράβων, καὶ λίβανον μίσγοιο, καὶ ἀγλαϊὴν στήσαιο ἄμμιγα κυανέω κατθέμενος πεπέρει, δικτάμνου τε κλώνας, ήδὲ γλοεροῦ πρασίοιο, 15 καὶ ῥῆον. στοιχὰς δ' οὐκ ἀπάνευθε μένοι, ούδέ νυ πετροσέλινον. ήδ' εὐώδης καλαμίνθη, δριμύ τε τερμίνθου δάκρυ Λιβυστιάδος, θερμόν ζιγγίβερι, κ' εὔκλωνον πενταπέτηλον, τὰς δοιὰς δραχμῶν πάντα φέροι τριάδας 20 αὐτίκα, καὶ πολίου πίσυρας όλκὰς βαρυέσσας. ήδὲ γαμαιζήλου πτόρθους ἄγοις πίτυος, καὶ στύρακος, μήου τ' ἰδὲ βοτρυόεντος ἀμώμου, καὶ νάρδου, Γαλάτης ἡν ἐκόμισσεν ἀνὴρ, Λημνιάδος μίλτοιο, καὶ ἐκ Πόντου παράλοιο 25φοῦ, καὶ Κρηταίης σπέρμα γαμαιδρυάδος, μαλαβάθρου καλὰ φύλλα, καὶ ὀπταλέην χαλκῖτιν,

μίσγεσθαι ῥίζης οὐ δίχα γεντιάδος,

<sup>1</sup> φόδου] L om. T 3 χυανέης] L Ο χυαρέης T || μίξαιο] L Ο μίξεο T 4 γλυκερής] L Τ γύρης Ο || σπέρματα] Ο σπέρματος L σπέρμα T 5 σκόρδειον] Ο σκόρδιον L T || χλεινόν] Τ Ο κείνον L || μίσγοιο] Chart. μίσγεο codd. 6 Συρίης] Τ Ο Άσσυρίης L 7 καὶ κιννάμωμον] Ο κιννάμωμον L κιννάμωμου T 9 ἢ ἔτι] L ἡδὲ τι Τ ἴσον Ο || καὶ] L T τε καὶ Ο 10 ὃν τ' ἄντρον] Tid. ὃν ἄντρον L θ' ὃν ἄντρον T 12 σχοίνον] L σχοίνων T || θαῦμα] L T θῦμα Ο || ἀρράβων] L ἀράβων Ο 13 μίσγοιο] Ο μίσγεο L T || ἀγλαϊήν] T Ο ἀγλαὴν L 17 πετροσέλινον] T Ο πετροσέλινου L 18 τερμίνθου] L Ο τερμίνθη T 19 θερμὸν ζιγγίβερι] Τ καὶ θερμὸν ζιγγίβερι Ο θιγγίβερι θερμὸν L 20 φέροι] Chart. φέροις L T Ο 21 ὁλκὰς βαρυέσσας] Chart. βαρυέσσας ὁλκὰς L T βαρυέας ὁλκὰς Ο. 22 πτόρθους] L πτόρθος O T 23 τ' ἰδὲ] Tid. τε καὶ codd. 25 Πόντου] L Q πόντοιο O Ald. || παράλοιο] L βάλοιο O Ald. 26 Κρηταίης σπέρμα] L ἐρημαίης πρέμνα Ο

Weigh out rose petals equal to 12 drachms, and add Illyrian iris, and mix in an equal amount of sweet-boughed black liquorice and the seeds of sweet French turnip. Add fragrant garlic germander and the famous sweet-scented juice taken from Assyrian balsam. Put in the same amount of cinnamon by weight, and do not forget to add an equal amount of agaric and myrrh and sweet scented Saussurea Lappa, and crocus grown in the Corycian cave; and add cassia and sweet scented Indian nard and camel-hay, the wonder of the nomad Arabs, and incense and black pepper and shoots of dittany and green horehound and rhubarb. Do not let cassidony be omitted, nor parsley. And let sweet-scented mint and the piercing tear of Libyan terebinth, warm ginger and well-branched cinquefoil, two-thirds of a drachma each, be added and four drachma weights of hulwort. And bring boughs of dwarf pine and storax and bald money and grape-bearing cinnamon and nard brought by a man of Galatia. Bring Lemnian red earth and spikenard from the Black Sea and seed of Cretan ground oak, and the fine leaves of malabathron and cooked copper ore and gentian root,

άνισον, χυλόν θ' ὑποκιστίδος, ἠδέ νυ καρπὸν βαλσάμου, λιπαρὸν κόμμι διηνάμενος. καὶ μαραθόιο σπέρμα, καὶ Ἰδαῖον καρδάμωμον, ήδ' ἄκορον στήσεις παρθέμενος σέσελι. δάκρυον εὖ μίσγοιο βαλών κυανωπὸν ἀκάνθης, 5 θλάσπι τε σύν τούτοις ἰσοβαρὲς τελέθοι. τόσσον δ' ὑπερικοῦ, τόσσον δ' ἐπιμίσγεο ἄμμι, καὶ σαγαπηνὸν ἄγοι τετράδα τοσσατίην, δοιὰς δ' εἰσάξεις, τά περ ἸΙστριος ἔκβαλε κάστωρ μήδεα, καὶ λεπτὴν ῥίζαν ἀριστολόχου, 10 δαυκείου τε σπέρμα, καὶ αὐαλέην ἄσφαλτον ίοβόλων κοίταις άντία δαιομένην. ἶσα δ' ὀποῦ πάνακος συμμίσγεο κενταυρίω, χαλβανίδος λιπαρής ἰσόμορον θέμενος. καὶ τὰ μὲν ἐν θυίη πολιῶ μαλθάσσεο οἴνω, 15 όσσα περ ύγροτέροις δάκρυσιν ἐμφέρεται κόψας δ' εὖ λεπτῶς, τὰ δέ κεν ξυλοειδέα πάντα Άκταίω μίσγοις συγκεράσας μέλιτι. ίλήκοις ὃς τήνδε μάκαρ τεκτήναο Παίων, εἴτε σὲ Τρικκαῖοι δαῖμον ἔχουσι λόφοι, 20 η Ῥόδος η Βουρίνα καὶ ἀγχιάλη Ἐπίδαυρος. ίλήκοις, ίλαρὴν δ' αἰὲν ἄνακτι δίδου παίδα τεὴν πανάκειαν. ὁ δ' εὐαγεέσσι θυηλαῖς ίλάσεται τὴν σὴν αἰὲν ἀνωδυνίην.

<sup>1</sup> άνισον] L άννησον Ο άνησον Τ 3 μαραθόιο] Heitsch μαράθρου L O lac. in T || 'Ιδαῖον] A Ald. ἱερὸν L
4 ἡδ' ἄχορον] Ο Τ καὶ ψαφαρὸν L 6 τε] om. L 7 τόσσον] L Τ τόσση Ο || ἐπιμίσγετο] Τ ἐπιμίσγεται L
Ο || ἄμμι] L Τ ἄμις Ο 8 ἄγοι] Ο Τ ἄγοις L 9 δοιὰς δ' εἰσάξεις] L Ο εἰσάξοις Τ 10 λεπτὴν] L Τ λεπτὴς
Ο 11 δαυκείου] Heitsch δαύκου L δαυκείον Ο δαυκίου Τ 15 πολιῷ] L πόλωι Τ πολλῷ Ο || μαλθάσσεο]
Chart. μαλθάξειο L μαλθάξαιο Q<sup>1</sup> Ald. μαλθάξεαι Ο 17 κόψας] L κόψαι edd. || δ' εὗ] L δέ Τ 19 ὃς] L
Ο ὅσον Τ 21 Βουρίνα] Ο Τ Βουρίννα L 23 πανάκειαν] L Ο πανακείοις Τ

and anise and the juice of hypocist and the fruit of balsam, wetting the shining gum, and fennel seed and cardamom from Ida. And add yellow flag and cicely. And add and mix well in the dark sap of the milk thistle and an equal amount of shepherds purse and as much hypericum, and ajowan, and four times as much of ferula persica, and twice as much of the secretions of the Istrian beaver and the thin root of birthwort and seed of Athamanta Cretensis and dry asphalt, which burns against the lairs of serpents. And mix an equal amount of all-heal juice with centaury, adding an equal part of shining all-heal. Soften in a mortar with wine as much the ingredients which come in liquid tears. Cut up small and mix up all the woody ingredients with Attic honey. Paean who first made this for us be gracious, whether the peaks of Tricea hold you or Rhodes or Bourina or Epidaurus by the sea. Be gracious and always send your daughter Panacea gracious to our King. He will always propitiate you with blessed sacrifices for the freedom from pain you send. VIII. Τούτων οὖν τῶν ἐπῶν ὑπὸ τοῦ ἀνδρὸς οὐκ ἀφυῶς γενομένων σκέψασθαι ἀναγκαῖον ἔμοιγε δοκεῖ, τί δή ποτε πολλῶν ὄντων τῶν τοιούτων θηρίων οὐχὶ τῶν ἄλλων τινὸς, ἀλλὰ τῶν ἐχιδνῶν τὰς σάρκας ἐπιτηδείους εἰς τὴν μίξιν εἶναι νομίζομεν. αὐτὸς μὲν γὰρ, ὡς ὁρậς, περὶ τούτων οὐδὲν ἔγραψεν· ἐμοὶ δὲ δοκοῦσι τῶν ἄλλων θηρίων αῦται μὴ τοσαύτην ἐν τοῖς σώμασι τὴν φθοροποιὸν δύναμιν ἔχειν. ὁ μὲν γὰρ βασι- 5 λίσκος, ἔστι γὰρ τὸ θηρίον ὑπόξανθον, καὶ ἐπὶ τῆ κεφαλῆ τρεῖς ὑπεροχὰς ἔχον, ὡς φασιν, ὅτι καὶ ὁραθεἰς μόνον καὶ συρίττων ἀκουσθεἰς ἀναιρεῖ τοὺς ἀκούσαντας καὶ

- 234 τοὺς ἰδόντας αὐτόν· καὶ ὅτι τῶν ἄλλων ζώων, εἴ τι καὶ ἅψαιτο τοῦ ζώου ἀνῃρημένου, καὶ αὐτὸ τελευτῷ εὐθέως, καὶ διὰ τοῦτο πῶν αὐτοῦ τὸ γένος τῶν ἄλλων θηρίων ἐγγὺς εἶναι φυλάττεται. ὁ δὲ δρύϊνος ὄφις ἐν ταῖς τῶν δρυῶν ῥίζαις τὸν βίον ποιοὑμενος 10 οὕτως πονηρός ἐστι πρὸς τὸ διαφθεῖραι κακῶς, ὥστε εἴ τις, φασὶν, αὐτοῦ ἐπιβαίη, ἐκδέρεσθαι αὐτοῦ τοὺς πόδας, καὶ οἴδημα πολὺ γίνεσθαι καθ' ὅλων τῶν σκελῶν. καὶ ἔτι τὸ θαυμασιώτερόν φασιν, ὅτι καὶ εἰ θεραπεύειν τις ἐθέλοι, τούτου τὰς χεῖρας ἐκδέ-ρεσθαι. εἰ δἑ τις καὶ ἁμυνόμενος αὐτὸ ἀποκτεῖναι βούλοιτο τὸ θηρίον, λέγουσιν αὐτὸν μοχθηρὸν νομίζειν εἶναι πῶν τὸ εὐφραντὸν καὶ μηδενὸς ἄλλου ὀσφραίνεσθαι δυνάσθαι. 15 ὁ δὲ ἀμόρρους καὶ ἡ αἰμορροῖς τοῖς ἑαυτῶν ὀνόμασις ὑμοίαν ποιοῦνται τῶν ἀνθρώπων τὴν διαφθοράν. αἰμορραγοῦντες γὰρ διὰ τοῦ στόματος καὶ τῶν μυκτήρων καὶ τοῦ παντὸς σώματος οὕτως ἀπόλλυνται. ὥσπερ γε καὶ οἱ ἀπὸ τῆς διψάδος ὑπὸ τοῦ καύσου διαφθειρόμενοι κακῶς, καὶ γὰρ οὗτοι διψῶντες πάνυ καὶ διακαιόμενοι σφοδρῶς, ἐνίοτε καὶ διαρρηγνύμενοι, τελευτῶσιν. ὁ δὲ ἀκοντίας ἐκτείνας ἑαυτὸν πάνυ καὶ ὥσπερ 20
- 235 τι ἀκόντιον ἐφαλλόμενος τοῖς σώμασιν οὕτως ἀναιρεῖ. καὶ τῶν ἀσπίδων ἡ λεγομένη πτυὰς ἐπανατείνασα τὸν τράχηλον καὶ συμμετρησαμένη τὸ τοῦ διαστήματος μῆκος, ὥσπερ τότε λογικὸν γιγνόμενον τὸ θηρίον εὐστόχως ἐμπτύει τοῖς σώμασι τὸν ἰόν.

 <sup>10</sup> Sextus Julius Africanus Cesti 3.31.1 = Wallraff D56 16 Nicander Theriaca 282–319 18 Africanus
 Cesti 3.30 = Wallraff F55a 20 Aelian NA 8.13 Pliny NH VIII 85.8–9

<sup>1</sup> ὑπὸ τοῦ ἀνδρὸς οὐκ ἀφυῶς] L οὐκ ἀφυῶς ὑπὸ τοῦ ἀνδρὸς Q<sup>1</sup> edd. 5–6 βασιλίσκος] L βασιλικὸς Q<sup>1</sup> corr. Q<sup>2</sup> 6 ὥς] L Q<sup>1</sup> ὃς Q<sup>2</sup> Ald. 13 τούτου] L τούτων Q<sup>1</sup> edd. 14 ἁμυνόμενος] L ἀμβλυόμενος Q<sup>1</sup> ἁμιλλόμενος Q<sup>2</sup> ἁμιλλώμενος edd.

VIII. So I think it necessary in view of the elegant verses of this man to ask why, when there are so many beasts of this kind, we think the flesh of vipers as opposed to the other kinds of snake is suitable for the mixture. For he, as you can see, wrote nothing on these matters; now, I think vipers have less destructive power in them than other beasts. For the basilisk is a yellowish beast with three bumps on its head, and they say that if you once see it or hear its hiss it kills the seer or the hearer. And they say that if any other beast touches the dead body of the victim, it too dies immediately, and for that reason every other kind of wild animal avoids being near it. The oak snake lives in the roots of the oak tree and is so wickedly disposed to horrible destruction that if anyone treads on it, they say, his feet are flayed and his legs swell up all over. Still more amazingly, they say that if someone tries to treat the victim, his hands are flayed also. And if anyone tries in self-defence to kill this beast, they say that everything pleasant seems to him to smell foul, and he cannot smell anything else. The blood-snakes, both male and female, kill men in a way which reflects their name; for the victim dies haemorrhaging from mouth and nostrils and the whole body. Likewise victims of the thirst snake die horribly of a heat fever; they die in thirst and burning up, and sometimes even burst apart. The javelin snake stretches itself right out and leaps at the body like a little javelin and kills that way. Of the asps, the one called spitter stretches out its neck and measures out the length of the gap and, as if it had at that moment become capable of reason, accurately spits its poison at the body.

τούτων γοῦν φασι τῶν θηρίων τινὶ, τριπλοῦν γάρ ἐστι τὸ εἶδος τῶν ἀσπίδων, ταύτης τε καὶ τῆς μὲν χερσαίας λεγομένης, τε χελιδονίας καλουμένης, τὴν βασιλίδα Κλεοπάτραν βουληθεῖσαν λαθεῖν τοὺς φυλάττοντας, ταχέως τε καὶ ἀνυπόπτως ἀποθανεῖν. ἐπεὶ γὰρ αὐτὴν ὁ Αὔγουστος νικήσας τὸν Ἀντώνιον ζῶσαν λαβεῖν ἠβούλετο, καὶ δὴ καὶ διὰ σπουδῆς φυλάττειν ὡς εἰκὸς, ἵνα δείξῃ Ῥωμαίοις ἐν τῷ θριάμβῷ τὴν οὕτω 5 διάσημον γυναῖκα. ἡ δὲ συνεῖσα, φασὶ, τοῦτο, καὶ ἑλομένη μαλλον ἔτι βασίλισσα οὖσα ἐξ ἀνθρώπων γενέσθαι ἤπερ ἰδιώτης Ῥωμαίοις φανῆναι, τότε ἐμηχανήσατο τῷ θηρίῷ τοὑτῷ τὸν θάνατον αὑτῆς γενέσθαι καὶ φασὶν αὐτὴν καλέσαι τὰς πιστοτάτας δύο γυναῖκας, αὖται δὲ ἦσαν αἱ πρὸς τὸ κάλλος αὐτῆς εἰς τὸν κόσμον τοῦ σώματος

236 ὑπηρετεῖν ἡρμοσμέναι καὶ τοῖς ὀνόμασι λεγόμεναι Νάειρα καὶ Χαρμιόνη. ἡ μἐν ἀνα- 10 πλέκουσα τὰς τρίχας εὐπρεπῶς, ἡ δὲ ἀποτέμνουσα τὰς ὑπεροχὰς τῶν ὀνύχων εὐφυῶς, εἶτα κελεύσασα σταφυλαῖς τε καὶ σύκοις κεκρυμμένον εἰσκομισθῆναι τὸ θηρίον, ἵνα, ὡς ἔφην, τοὺς φυλάττοντας λάθῃ, προπειρασαμένῃ αὐτὸ πρότερον ἐπὶ τούτων τῶν γυναικῶν, εἰ ὀξέως ἀναιρεῖν δύναται, καὶ μετὰ τὸ ταύτας ταχέως ἀνελεῖν λοιπὸν αὐτῃ, ἐφ' ῷ δὴ καὶ τὸν Αὔγουστον πάνυ καταπλαγῆναι λέγουσι, τῶν μἐχρι τοῦ συνα- 15 ποθανεῖν αὐτῃ τοσαύτην φιλοστοργίαν, τῆς δὲ τὸ μὴ βουληθῆναι ζῆν δουλικῶς, ἀλλ' ἐλέσθαι μᾶλλον ἀποθανεῖν εὐγενῶς. καὶ γὰρ λέγουσιν αὐτῆς εὑρεθῆναι τὴν χεῖρα τὴν δεξιὰν κειμένην ἐπὶ τὴν κεφαλὴν καὶ κρατοῦσαν τὸ διάδημα, ὡς εἰκὸς, ἕνα καὶ μέχρι τόῦ τοτε τοῖς ὁρῶσι βασίλισσα οὖσα βλέπηται· ὥσπερ καὶ ὁ τραγικὸς ποιητὴς ἡμῖν λέγει τὴν Πολυξένην, ὅτι

καὶ αὕτη ἀποθνήσκουσα ὅμως πολλὴν πρόνοιαν εἶχεν εὐσχημόνως πεσεῖν.

οί δὲ τὸ μὲν τῆς γυναικὸς πρὸς τὸ λαθεῖν εὐμήχανον, τοῦ δὲ θηρίου πρὸς τὸ ἀποκτεῖναι 237 τάχος βουλόμενοι ἡμῖν δεῖξαι τῷ λόγῳ, λέγουσιν αὐτὴν ἐνδακεῖν τὸν ἑαυτῆς βραχίονα μεγάλῳ πάνυ καὶ βαθεῖ τῷ δήγματι, ἐργασαμένην δὲ εἴς τι σκεῦος εἰσκομισθῆναι αὑτῆ 25 τὸν ἰὸν τοῦ θηρίου καὶ ἐγχέαι τῷ τραύματι, καὶ οὕτω διαδοθέντος αὐτοῦ μετ' οὐ πολὺ λαθοῦσαν τοὺς φυλάσσοντας εὐκόλως ἀποθανεῖν.

**<sup>3</sup>** Philumenus *de venenatis animalibus eorumque remediis* 16. 1–2 Aëtius *Iatricorum* XIII 22.1–9 Paulus Med. 5.19.1 **20** Euripides *Hecuba* 568–570

<sup>4</sup> καὶ δὴ] conieci καὶ ζῆν L codd. edd. 8 αὑτῆς] Chart. Kühn αὐτῆς L al. || Υενέσθαι] L om. Crat.
Kühn 10 Χαρμιόνη] Υ Καρμιόνη L al. 24 αὐτὴν ἐνδακεῖν] L μὲν post αὐτὴν inserit in marg. Q<sup>2</sup>
26 καὶ ἐγχέαι] L καὶ om. Q<sup>1</sup> edd.

They say that it was with one of these sorts of beast (for there are three sorts of asp, this one and the one called the land snake and the one called the swallow snake) that Queen Cleopatra, wanting to escape the notice of her guards, died quickly and in a way which avoided suspicion. For when Augustus had beaten Antony and wanted to take her alive and to guard her carefully, as you would expect, so as to display such a famous woman to the Romans in a triumph. But, they say, she realised this and chose to leave the world of the living while still a queen rather than appear at Rome as a nobody, and so contrived her own death by the agency of one of these creatures. And they say she called her two most trusted women whose job was to tend to the attire of her body so as to display her beauty, called Naeira and Charmione. Naeira did her hair in a fitting manner and Charmione cut her fingernails and she then ordered the snake to be brought in, hidden in some grapes and figs, so that, as I have said, it would escape the notice of the guards. She then tried out the snake on these women to see if it could kill swiftly, and after it did she killed herself with the rest and they say that Augustus was completely amazed at this, both that they loved her to the extent of dying with her and that she was unwilling to live like a slave and chose rather to die nobly. And they say she was found with her right hand on her head grasping the diadem, as is likely, so that even up to that point it should be obvious to onlookers that she was the queen. Similarly the tragedian tells us about Polyxena that she also "when she died gave much forethought to falling in a noble manner". And those who want to demonstrate by this story both the cleverness of the woman in evading attention, and the speed of the asp in killing, say that she bit her own arm wide and deep, and after doing this got the asp poison brought to her in some vessel and poured it into the wound, and so after it had been given to her without the guards noticing, she peacefully died.

άλλά τοῦτο μὲν οὐκ ἀτερπῶς ἱστορείσθω, διὰ τὴν σὴν ἐν πᾶσι τοῖς λόγοις φιλοτιμίαν, καὶ ἵνα διὰ τούτου τὴν ὀξύτητα πρὸς τὸ ἀποκτεῖναι τούτων τῶν θηρίων ὧμεν εἰδότες. ὀξέα γάρ ἐστιν ἀληθῶς πρὸς τὸ ἀναιρεῖν ταῦτα τὰ θηρία. καὶ πολλάκις γὰρ ἐθεασάμην ἐγὼ ἐν τῇ μεγάλῃ Ἀλεξανδρεία τὸ τάχος τοῦ ὑπ' ἀὐτῶν γιγνομένου θανάτου. ὅταν γάρ τινα τούτῷ τῷ νόμῷ τῆς κολάσεως κατακριθέντα φιλανθρώπως καὶ ταχέως 5 ἀποκτεῖναι θέλωσι, προσβάλλοντες αὐτῶν τοῖς στέρνοις τὸ θηρίον καὶ ποιήσαντες ὀλίγον περιπατῆσαι, οὕτω ταχέως ἀναιροῦσι τὸν ἄνθρωπον. ὁρậς οὖν ὅπως ἡμεῖς δεόντως οὐδὲν τῶν τοιούτων θηρίων ἐγκαταμίγνυμεν τῷ φαρμάκῳ, διὰ τὴν τοσαύτην ἐν τοῖς σώμασιν αὐτῶν φθοροποιὸν δύναμιν.

238 ΙΧ. Καὶ αὐτῶν δὲ τῶν ἐχιδνῶν οὐχ ὅλα τὰ ζῶα εἰς ἀντίδοτον πέμπομεν, ἀλλ' ἀποτεμόν- 10 τες τὰς κεφαλὰς καὶ τὰς οὐρὰς οὕτω τοῖς ἄλλοις αὐτῶν σώμασιν εἰς τὴν μίξιν χρώμεθα, καὶ τοῦτο οὐ παρέργως οὐδ' ἄνευ λόγου τινὸς ποιούμενοι, ἀλλ' ἐπειδὴ αἱ κεφαλαὶ τὸν κάκιστον τῶν χυμῶν, αὐτὸν τὸν ἰὸν, ἐν αὑταῖς ἔχουσι, διὰ ταῦτ' ἀποκόπτειν αὐτὰς πειρώμεθα, ἵν' ὀλιγώτερον τῆς ἀπ' αὐτῶν δυνάμεως ἔχῃ τὸ φάρμακον, τῆς τοὑτων φύσεως μεταβλητικήν τινα δύναμιν εἰς τὸν ἰὸν ἐχούσης· ὥσπερ δὴ καὶ ἐν τοῖς παρα- 15 στάταις τὸ σπέρμα καὶ ἐν τοῖς μαζοῖς τὸ γάλα μεταβαλλόμενον γίνεται. ἡ δὲ ἔχιδνα τοῦτο τὸ ζωὸν τῶν ἀλλων ἀπάντων τὴν κεφαλὴν πρὸς τὸ διαφθεῖραι κακῶς ἐπιτηδειοτέραν ἔχει. φασὶ γὰρ αὐτὴν ἀνοίγουσαν τὸ στόμα πρὸς τὸ δέξασθαι τοῦ ἄρρενος τὸν θορὸν μετὰ τὸ λαβεῖν ἀποκόπτειν αὐτοῦ τὴν κεφαλήν· καὶ τοῦτον αὐταῖς εἶναι τῆς πονηρᾶς συμπλοκῆς τὸν τρόπον. εἶτα ἀπὸ τοῦ σπέρματος τὰ ζῶα γενόμενα κατά τινα 20 φυσικὴν ἄμυναν ἀναβιβρώσκειν μὲν τῆς μητρὸς τὴν γαστέρα, ἐκθρώσκειν δὲ εἰς τὰ ἔξω·

<sup>17</sup> τοῦτο τὸ ζωὸν] L *del*. Q<sup>2</sup>

But let that conclude our account of these matters, which I hope will give you pleasure both because of your love of writing of all kinds, and so that the story should inform us of the speed with which the poison of these beasts acts. For in truth these beasts kill swiftly; I have often seen in Alexandria the speed with which they induce death. For when they want to kill swiftly and humanely someone condemned to punishment by this law, they stick an asp on his chest and make him walk around a little, and so swiftly despatch him. So you see how necessary it is that we mix no part of such snakes in the drug, because of the great destructive power in their bodies.

IX. We do not put the whole body of the viper into theriac, but cut off the heads and tails and use the rest of the body in the mixture. We do not do this capriciously, nor without reason, but because the head contains the worst of the bodily fluids, the poison itself, and so we try to cut them off so that the drug should have less of their power, since the nature of these heads has a certain power of turning things to poison just as sperm is created by changes occurring in the testicles, and milk in the breast. The female viper has a head more suited for destruction than any other creature. For they say it opens its mouth to receive the male's semen, and then when it has got it to cut off his head; and this is the method of their foul intercourse. Then the creatures born from the sperm by a sort of natural revenge eat through the mother's stomach and emerge into the open

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239 καὶ οὕτως αὐτὰ εἰς ἐκδικίαν τοῦ πατρὸς ἀναιρεῖν τὴν μητέρα. ἅπερ ἡμῖν ὁ καλὸς Νίκανδρος ἐν τοῖς ἔπεσιν αὑτοῦ οὐκ ἀφυῶς γράφει, καὶ ἔστι τὰ ἔπη ταῦτα·

Μὴ σύ γ' ἐνὶ τριόδοισι τύχοις ὅτε δάχμα πεφυζὼς
Περκνὸς ἔχις θύησι, τυπῆ ψολόεντος ἐχίδνης.
Ἡνίκα θορνυμένου ἔχιος θολερῷ κυνόδοντι,
Θουρὰς ὀδὰξ ἐμφῦσα κάρην ἀπέκοψεν ὁμεύνου·
Οἱ δὲ πατρὸς λώβην μετεκίαθον αὐτίκα τυτθοὶ
Γεινόμενοι ἐχιῆες, ἐπεὶ διὰ μητρὸς ἀραιὴν
Γαστέρ' ἀναρρήξαντες ἀμήτορες ἐξεγένοντο.

Τὰς δὲ οὐρὰς καὶ αὐτὰ ἀφαιροῦμεν τὰ ἔσχατα τοῦ σώματος, ὥσπερ οὐρᾶς ὄντα 10 μέρη καὶ, ὡς οἶμαι, τὸ ἑυπαρώτερον τῆς οὐσίας ἕλκοντα μᾶλλον, καὶ πλείονά γε τὴν ὁλκὴν διὰ τὴν κίνησιν ποιούμενα, ὥσπερ τὰ πρὸς ταῖς οὐραῖς τῶν ἰχθύων μέρη διὰ τὴν πολλὴν κίνησιν τροφιμώτερα εἶναι λέγουσι. μὴ θαυμάζῃς δὲ, εἰ μετὰ τὴν τούτων ἀποκοπὴν τὰ λοιπὰ σώματα τῶν ζώων ἰσχυρότερον ποιεῖ τὸ φάρμακον τῆς

240 ἐμφύτου πρὸς τὸ σώζειν δυνάμεως καὶ ἐν αὐταῖς ταῖς σαρξίν αὐτῶν καταμεμιγμένης. 15 ὥσπερ δỳ καὶ ἐπ' ἄλλων ζώων πολλὰ τῶν μερῶν οὐκ ὀλίγα τῶν παθῶν ἀγωνιστικῶς θεραπεὑεσθαι οἴδαμεν. ἐνίοις γοῦν βοηθοῦσιν αἱ κεφαλαὶ τῶν μυῶν, καυθεῖσαι γὰρ καὶ μετὰ μέλιτος χριόμεναι, τὰς ἀλωπεκίας ἰἀσθαι δύνανται. καὶ τοῦ ἰκτίνου τὴν κεφαλὴν, φασὶν, ὁμοίως τοὺς ποδαγριῶντας ὡφελεῖν, εἴ τις αὐτῆς ξηρανθείσης ἀνευ τῶν πτερῶν ὅσον τοῖς τρισὶ δακτύλοις ἐπιπάσας ὕδατι πίνειν ἐθέλοι. καὶ τῶν μερῶν δὲ πολλάκις 20 αὐτὰ μόνα τὰ μόρια τινὰ τῶν παθῶν ἰἀσθαι δύναται. ὁ γοῦν τῆς καμήλου ἐγκέφαλος ξηρανθεἰς καὶ μετ' ὅξους πινόμενος ἐπιληπτικοὺς ἰὰται καὶ ὁ τῆς γαλῆς ὁμοίως. ὁ δὲ τῆς χελιδόνος μετὰ μέλιτος πρὸς ὑποχύσεις ποιεῖ. καὶ ὁ τῶν προβάτων σκευασθεἰς ὁμοίως ταῖς τῶν παίδων ὀδοντοφυῖαις ἄκρως βοηθεῖ. τοῦ δὲ ταυρείου κέρατος τὸ ξύσμα μεθ' ὕδατος πινόμενον αἰμορραγίας ἐπέχει.

**<sup>19</sup>** Comp. Med. Loc. I: XII 404.10–11 Cyranides 3.19 **22** SMT XI: XII 359.321.13–16 **23** SMT XI: XII 359.14–17

<sup>3</sup> τύχοις ὅτε δάχμα] Jacques τύχης ὅτε δήγμα L || πεφυζὼς] L Jacques πεφυγὼς Crat. 4 τυπ $\hat{\eta}$ ] Jacques τυπὴν L || ψολόεντος] Jacques χολόεσσας Chart. τῆς χολόεσσης L χολόεσσαν Kühn 5 θορνυμένου] Jacques Crat. θ' ὀρνυμένου L Q<sup>1</sup> Ald. || θολερῷ] L θαλερῷ Jacques 6 ᠔δὰξ] ἀμὺξ Jacques 8 ἐχιῆες] *Crat.* ἔχιης L ἔχιες Q<sup>1</sup> Ald. 20 ὅσον τοῖς] L πρὸς τοῖς Q<sup>1</sup> ὅσον ὑπὸ τοῖς Q<sup>2</sup> edd. 21 ᠔ύναται] Υ δύνανται L

and so kill the mother to avenge the father. So the great Nicander writes elegantly in his poetry, and these are his words:

"Do not be at the crossroads when the dusky viper escaping her bite is enraged by the blow of the sooty-coloured she-viper when, as the male mounts her, leaping and fastening her furious bite in him, she cuts off her husband's head. But the little snakes which are born follow up the outrage against their father when they orphan themselves by breaking out of their mother's slender body."

We remove the tails and the whole extremities of the body because they are part of the tail and, in my view, because they drag the more foul part of the body and get more of a dragging because they provide the motion of the snake, just as the parts of a fish towards the tail are said to be more nourishing because of the amount of moving they do. Do not be amazed if after cutting off these parts, the rest of the body of the creatures makes the drug stronger when its inherent power to save is mixed in with their very flesh. In the case of other animals we know that many of their body parts heroically treat many conditions. For example many are helped by the heads of mice, for when burnt and anointed with honey they can cure alopecia. And they say that the head of a kite likewise is a treatment for gout if one dries it without its feathers and sprinkles it in three fingers of water. And sometimes even single subdivisions of parts can cure some diseases. For example a camel's brain dried and drunk with vinegar cures epileptics; likewise that of a weasel. That of a swallow with milk works against cataracts. That of a sheep prepared the same way is a great help against the teething pains of children. The shavings of the horn of a bull, drunk with water, stop haemorrhage,

καὶ οἱ μηροὶ δὲ καιόμενοι ἐπέχουσι τὸ αἶμα. πολλάκις δὲ καὶ τὴν γαστέρα λελυμέ-241 νην τὸ αὐτὸ τοῦτο ἵστησι. τὸ δὲ τοῦ ἐλάφου κέρατος ῥίνημα καιόμενον καὶ μετ' οἴνου λειούμενον, εἶτα περιπλασσόμενον, τοὺς σειομένους ὀδόντας πήγνυσιν, ὥσπερ δὴ καὶ τὸν ἀστράγαλον τῆς βοὸς τοῦτο ποιεῖν δύνασθαι λέγουσιν. ἐξάγει δὲ καὶ στρογγύλην

- ἕλμινθα μετὰ μέλιτος πινόμενος, καὶ μετ' ὀξυμέλιτος σπλῆνα τήκει, καὶ τὰς λεύκας καταχριόμενος, συμμέτρως δὲ ἀφροδισιαστικός ἐστιν. οἱ δὲ τοῦ κάστορος ὄρχεις ὁμοίως πινόμενοι σπασμοὺς ἰῶνται. πολλὰ δὲ τῶν ζώων καὶ τὰς χολὰς ἑαυτῶν ἔχει βοηθεῖν τῷ ἀνθρώπῳ δυναμένας, καὶ τὰ στέατα, καὶ τοὺς μυελοὺς, καὶ τὸ γάλα, καὶ τὸ δέρμα, καὶ τὸ αἶμα αὐτὸ, καὶ τῶν ὄφεων τὸ γῆρας. ἤδη δὲ καὶ τὰς ἀφόδους αὐτῶν
- ώφελούσας τινάς εἴδομεν. ἡ γοῦν τῆς βοὸς ἄφοδος ξηρὰ κεκαυμένη καὶ διδομένη τρισὶ 10 κοχλιαρίοις ὑδρωπικῷ βοηθεῖ. καὶ ἡ τῶν μυῶν ἄφοδος λεία μετ' ὄξους ἀλωπεκίας θεραπεύει· ἐν ποτῷ δὲ λαμβανομένη τοὺς ἐν κύστει θρύπτει λίθους· τὸ δὲ τοῦ χηνὸς στέαρ τὰς φλεγμονὰς μετὰ ῥοδίνου ἰᾶται· καὶ ὁ τοῦ ἐλάφου μυελὸς παρηγορικώτατόν ἐστι φάρμακον. τὸ δὲ τῆς βοὸς γάλα πινόμενον δυσεντερικοῖς βοηθεῖ. τῆς δὲ ὑαίνης ἡ χολὴ μετὰ μέλιτος πρὸς ὀξυδερκίαν ποιεῖ, καὶ τὰς ὑποχύσεις διαφορεῖ ἐγχριομένη. 15
- 13 τοῦ δ' ἱπποποτάμου τὸ δέρμα καιόμενον, καὶ μετὰ ὕδατος λεῖον ἐπιτιθέμενον, φυμάτων σκορπιστικὸν γίνεται, ὥσπερ δὴ καὶ τὸ ἔχεως δέρμα, λεῖον ἐπιτιθέμενον ταῖς ἀλωπεκίαις, θαυμαστῶς ἀναφύει τὰς τρίχας. τὸ δὲ τῆς ἀσπίδος γῆρας τριφθὲν μετὰ μέλιτος καὶ ὑπαλειφόμενον ὀξυδερκέστατόν ἐστιν. καὶ ὅλως πολλή τίς ἐστιν ἡ τῶν τοιούτων ὕλη, ἡν οὐκ εὕκαιρον εἶναι νομίζω νῦν ἀναγράφειν, ἵνα μὴ μακρὸς ἡμῖν ὁ λόγος 20
  - γένηται, ἀρκούντων εἰς τὴν ἀπόδειξιν τοῦ λεγομένου καὶ μόνων μοι τῶν προειρημένων. ἐκεῖνο δὲ ἀναγκαῖόν ἐστιν εἰδέναι, ὅτι τῶν ζώων αὐτῶν ὅλα τὰ σώματα πολλάκις τοῖς ἀνθρώποις βοηθεῖ. καρκίνος γοῦν ὁ ἀπὸ τῶν ποταμῶν λειωθεἰς καὶ καταπλασθεἰς ἀνεκβάλλει τοὺς σκόλοπας καὶ τὰς ἀκίδας. καὶ ἡ καρἰς ὁμοίως λειωθεῖσα μετὰ βρυωνίας ῥίζης πινομένη ἕλμινθας ἐξάγει. ὁ δὲ σκορπίος σὺν ἄρτῷ ἐσθιόμενος ὀπτὸς 25 θρύπτει τοὺς ἐν τῇ κύστει λίθους. ὁμοίως δὲ καὶ τὸ γῆς ἔντερον μετ' οἴνου πινόμενον τὸ αὐτὸ ποιεῖ. εἰ δἑ τις αὐτὰ τρίβων ἐν μελικράτῷ λάβοι ἰκτεριῶν εὐθέως καθαρθεἰς ἀπαλλάσσεται.

**<sup>10</sup>** *SMT* X: XII 290–309 **12** *Comp. Med. Loc.* I: XII 392.4, 404.11–12 **13** *Comp. Med. Loc.* IX: XIII 310.17, 311.4, 18 **14** *MMG* II: XI 105.4 || *Alim. Fac.* III: VI 683.1–4, *SMT* X: XII 266.18–267.6, 292.3–7, *Comp. Med. Loc.* VIII: XIII 171.10–12 **15** *SMT* X: XII 279.1–9 **16** *Comp. Med. Loc.* I: XII 409.4

<sup>10</sup> καὶ διδομένη] L om. Q<sup>1</sup>, edd. 16 μετὰ ὕδατος] L μεθ' ὕδατος Chart. Kühn 20 ἡμῖν] conieci ὑμῖν L codd. edd. 24 καρὶς] L Arab. κανθαρίς coniecit Crat. 27 τρίβων] Q<sup>2</sup> τρίτον L, Q<sup>1</sup>

and the burnt thighbones also hold back the blood. The same thing also often stops an upset stomach. The filings of the horn of a deer, when burnt, and ground up with wine, then applied as a plaster, fix loosened teeth; they say the vertebra of an ox can do this too. And drunk with honey it expels roundworm, with vinegar and honey it softens the spleen, and when smeared on to leprosies it softens them, and it is equally aphrodisiac; and the beaver's testicles drunk in the same way cure spasms. And many animals can help men by their bile, their fat, their marrow, their, milk, their skin, their very blood, and in the case of snakes their shed skin. We have even known men helped by their excrement. For example cow dung dried and burnt with three snails helps dropsy; mouse dung mixed with vinegar cures alopecia; and taken in a drink it breaks down bladder stones; goose fat with rose water heals the lungs; and deer marrow is a very soothing drug. Drinking cow's milk helps those with bad stomachs. Hyena bile with honey helps to induce sharp-sightedness, and when rubbed on cataracts removes them. Hippopotamus skin, burnt and made into a smooth paste with water, dissipates tumours, just as a smooth paste of snakeskin applied to bald patches wonderfully encourages hair growth. An asp's shed skin rubbed into honey and applied as an ointment gives very sharp sight. There is so much material of this kind that I think now not a good time to write it all down for fear this treatise becomes too long for us, and just as much as I have already written is enough to give you proof of what I say. And you should know this, that the whole bodies of animals are often good for people. For example river crab beaten smooth and applied as a plaster drives out thorns and splinters; similarly shrimp beaten small with bryony root and drunk expels worms. Scorpion roasted and eaten with bread breaks up bladder stones. Again, earth worms drunk in wine do the same thing. And if someone with jaundice beats them up in honey and wine and drinks them he will immediately be purged and relieved of it.

πολλάκις δὲ καὶ σὺν ῥοδίνῃ κηρωτῇ ἐπιτιθέντα τῶν ποδαγρῶν ταῖς φλεγμοναῖς ἥρμο-243 σαν, ὁ δὲ ἱέραξ ἑψηθεὶς μετὰ μύρου σουσίνου ἀμβλυωπίας ἰᾶται. καὶ ὁ κάνθαρος δὲ

- θεραπεύει τὰς ὠταλγίας ἀποζεσθεὶς ἐλαίῳ καὶ ἐνσταζόμενος εἰς τὸ οὖς. ὁ δὲ κορυδαλὸς ὀπτὸς τρωγόμενος θαυμασίως τοὺς κωλικοὺς πολλάκις ὠφέλησε, καὶ ἵνα μᾶλλον τὴν ἐν τοῖς σώμασιν αὐτῶν δύναμιν θαυμάσης, ἐκεῖνό σοι φιλοτιμότερον διηγήσομαι. 5 πολλὰ γὰρ καὶ ὁραθέντα μόνον τὴν ἑαυτῶν ἰσχὺν ἐπιδείκνυνται. ὁ οὖν ἀσκαλαβώτης ὁραθεἰς ὑπὸ τῶν σκορπίων ὑποπήγνυσιν αὐτοὺς, καὶ οὕτως ἀναιρεῖ. ἡ δὲ ἀμφίσβαινα, ἔστι δὲ τὸ ζῶον ἀμφικέφαλον, ὥσπερ δὴ καὶ τῶν πλοίων τὰ ἀμφίπρωρα, τῆς φύσεως τῷ περιττῷ τῆς οὐσίας δύο κεφαλὰς ἔχειν αὐτῆ χαρισαμένης, τοῦτο δή φασι τὸ ζῶον εἰ ὑπερβάλῃ γυνὴ κατὰ γαστρὸς ἔχουσα, ἐκτιτρώσκει τὸ παιδίον κακῶς, ὥστε οὐδὲν 10 θαυμαστὸν, εἰ καὶ τὰ τῶν ἐχιδνῶν σώματα ἀποκοπέντων αὐτοῖς τῶν μερῶν ἐκείνων ὁμοίως ἔτι πρὸς τὸ βοηθεῖν τὴν ἰσχὺν ἔχει. ἐπέδειξα γὰρ, ὡς οἶμαι, φιλοπόνως ὅτι καὶ ὅλα μὲν τὰ ζῶα τοῖς ἀνθρώποις βοηθεῖ ποτε, ἔσθ' ὅτε δὲ καὶ αὐτὰ μόνα τὰ μέρῃ. ἐνίοτε δὲ καὶ τῶν μερῶν αὐτῶν τὰ οὕτω μικρὰ μόρια.
- 244 Χ. Ἐκεῖνο δὲ ἀναζητῆσαι τῷ λόγῳ μᾶλλόν ἐστιν ἀναγκαῖον, ὅπερ καὶ τοῖς πολλοῖς 15 θαυμασίας ἄξιον εἶναι δοκεῖ. αὐτὰ γὰρ τὰ θηρία ὄντα τοῖς σώμασι πολέμια καὶ οὕτω τὸν ἄνθρωπον ἀναιροῦντα ὀξέως, πῶς πάλιν αὐτὰ τοῖς ὑπ' αὐτῶν γενομένοις δήγμασι βοηθεῖν δύναται, καὶ μόνα διασώζειν ἐκ τοῦ τοιούτου κακοῦ τὸν ἄνθρωπον; καί φησί τις ἀρχαῖος λόγος ὅτι τινὰ τῶν ζώων ὁμιλήσαντα μὲν ἐν τῷ δάκνειν τῷ ἐκ τοῦ δήγματος ἀποκρινομένῳ ἀνθρωπείῳ αἴματι ἀναιρεῖ τοὺς δακνομένους. μὴ γευσάμενα δὲ τοῦ 20 αἴματος, ἀλλ' οὕτως ἐσθιόμενα, τοὺς δηχθέντας διασώζειν πέφυκεν. ὥσπερ καὶ ἐπὶ τοῦ ἑλενίου μὲν ὑπὸ τῶν Ἐλλήνων, ὑπὸ δὲ τῶν ἐπιχωρίων νίνου καλουμένου, τὸ αὐτὸ ἱστορεῖσθαι λέγουσι.

<sup>7</sup> Pliny NH XXX 128.1–6

n αὐτοῖς] L τοῖς Q¹ edd. 16 θαυμασίας] L θαυμαστῶς Q¹ corr. Q² 22 νίνου] L νίκου ἢ νίνου Chart. Kühn

They have often healed the lungs of the gouty when applied with rose salve, and falcon cooked up with lily perfume cures weakness of sight. Dung beetle cures ear ache when boiled up with oil and dripped into the ear. Eating roast lark has often wonderfully helped those suffering from colic. And so that you may wonder more at the power in the bodies of living creatures I will explain something even more remarkable. Many creatures exhibit their power just by being looked at. The gecko fixes scorpions to the spot when they see it and so kills them. The amphisbaena is a two-headed animal like double-ended ships, since nature has done her the unusual favour of giving her two heads, and they say that if a pregnant woman encounters this creature she miscarries, and no wonder if the bodies of these snakes, cut up, still have power to help. For I have diligently shown I think that both the whole bodies sometimes help men, and sometimes just parts of them, and sometimes small parts of the parts themselves.

X. There is one thing we must seek out in our reasoning, which many people find bewildering. For as the animals themselves are hostile and disposed to kill men very easily, how can they be beneficial for bites they themselves inflict, and be the one thing which saves men from such an evil? There is an old story which says that certain animals kill the people they bite if in biting they come into contact with human blood dripping from the bite; but if they do not taste blood but are eaten, their nature is to save those they have bitten. So in the case of what the Greeks call helenium, but the natives ninos, they say the same story is told; φασὶ γὰρ τοὺς Δάκας καὶ τοὺς Δαλμάτας περιπάττειν αὐτὸ ταῖς ἀκίσι τῶν βελῶν, καὶ οὕτως ὁμιλῆσαν μὲν τῷ αἵματι τῶν τιτρωσκομένων ἀναιρεῖν δύνασθαι, ἐσθιό-245 μενον δὲ ὑπ' αὐτῶν ἀβλαβὲς εἶναι, καὶ μηδὲ κακὸν αὐτοὺς ἐργάζεσθαι, καὶ τὰς ὑπ' αὐτῶν γε ἀναιρουμένας ἐλάφους ἐν τῶ κατατοξεύεσθαι μηδ' αὐτὰς ἐσθιομένας κακόν

τι τοὺς ἐσθίοντας διατιθέναι λέγουσιν. ἀλλ' οῦτος ὁ λόγος οὐ δοκεῖ μοι αὐτάρκης εἶναι 5 πρὸς τὴν εὕρεσιν τοῦ ὑφ' ἡμῶν ζητουμένου, ἐμπειρικός τις ῶν καὶ μόνον τὸ γενόμενον διηγούμενος. καὶ γὰρ αὐτοὺς τοὺς ἐμπειρικοὺς οὐκ ἀποδέχομαι, ὅτι καὶ αὐτοὶ, ὥσπερ ἰδιῶται μόνον ὁρῶντες τὸ βλεπόμενον, θαυμάζουσι μὲν τὸ γιγνόμενον, τοῦ δὲ γιγνομένου τὴν αἰτίαν ἀγνοοῦσιν. οἱ μὲν μηδὲ τὴν ἀρχὴν ἐπιζητοῦντες μαθεῖν, ἀλλ' ἀποκνοῦντες αὐτὴν εὑρεῖν τῷ λόγῳ, καὶ μόνον τῶν γιγνομένων ἀποπειρώμενοι, καὶ 10 τὴν τῶν πολλάκις ὁρωμένων ἐμπειρίαν ἀρκεῖν αὐτοῖς εἰς τὸ ἰατρεύειν λέγοντες, τὸν αὐτὸν ἔχουσιν, ὡς ὁρậς, τοῖς ἰδιώταις τοῦ θαύματος τρόπον. οἱ δὲ τούτων φιλοτιμώτεροι ὁμολογοῦσι μὲν ὅτι χρή τι ἐπιστημονικώτερον τῶν ἰδιωτῶν εἰς τὰ τοιαῦτα ἔχειν

τούς ἰατρούς, εύρεῖν δὲ ἀδυνατοῦντες, καὶ τὸ ζητεῖν περιττὸν εἶναι νομίζουσιν. ἀλλ'

246 ήμεῖς πλέον †εἶναι† τούτων τὸ φιλότιμον εἰς τὴν τέχνην ἔχοντες, καὶ τὰ γιγνόμενα 15 μόνον βλέπειν ἰδιωτικῶς μὴ θέλοντες, οὔτε τὴν ἐμπειρίαν ἐκβάλλομεν καὶ συναρμό-ζοντες αὐτῆ τὸν λόγον ὅταν ἐνδέχηται, τελείαν οὕτω καὶ λογικὴν ἀναγκαίως ἔχομεν τὴν τέχνην, οὐχ ἵνα μόνον εὕρωμεν, ὅπως γίνεται φιλοπονοῦντες εὑρεῖν, ἀλλ' ἵνα τι καὶ εἰς τὴν θεραπείαν εὔχρηστον ἐκ τοῦ εὑρεθέντος μάθωμεν. κἀνταῦθα οῦν ἐπαγωνισώ-μεθα τῷ λόγῳ, ἵνα εὕρωμεν τοῦ γιγνομένου τὴν αἰτίαν. θαυμαστὸν γὰρ ὡς εἴ γε ἐκ 20 τῆς περὶ τὸ ζητεῖν αὐτὸ φιλοτιμίας, ἐξ ἑτοίμου καὶ αὐτὸ, ὥσπερ ἀμειβόμενον, ταχέως εὑρίσκεται· καὶ ἵνα σοι πιστότερον ποιήσω τὸν λόγον, ἀπ' ἄλλων τινῶν ἐν τοῖς ἔργοις σαφῶς ὁρωμένων τὴν ἀπόδειξιν ποιήσομαι καὶ ἔζωθέν γε ἐπιτιθεμένων μόνον καὶ διὰ τοῦ στέατος ἐπιτιθεμένου τοῖς τραύμασιν ἄκρως βοηθουμένους οἴδαμεν· καὶ τῆς μυγα-25 λῆς τὰ δήγματα καὶ αὐτὰ ἀναιροῦντα ὑπ' αὐτῆς πάλιν τῆς μυγαλῆς τριβομένης καὶ ἐπιτιθεμένης ἀνωδύνως θεραπεύεται.

<sup>15 †</sup>εἶναι†] seclusi 18 εὕρωμεν] L εὕροιμεν Q<sup>1</sup> edd.

They say the Dacians and the Dalmatians spread it on the tips of their missiles, and so when it gets into the blood of the wounded, it can kill, but when they themselves eat it it is harmless, and does not even do them any ill, and that deer they have shot with bows do no harm to those who eat them. But this story seems to me inadequate for the discovery of what we are seeking, because it is in a sense empirical and only recounts what has happened. For I do not accept the empiricists since they like laymen pay attention only to what they see and marvel at what happens but know nothing of the cause of what happens. For they do not even seek to learn the cause, but shrink from finding it by reason, and only have experience of events, and say that experience of what they have often seen is enough for them to practise medicine, and as you see have the same attitude of wonder as laymen. Those with a greater love of honour than these admit that doctors should have a more scientific attitude to such things than laymen but since they cannot find it they think that even looking for it is superfluous. But we, having more ambition in relation to the art of medicine than they, and not wishing to look only at actual events like laymen, do not throw out experience, and fitting reason to it whenever possible, we necessarily have a perfect and rational skill, working industriously at making discoveries not just for their own sake, but also so that we may learn from what we find, things useful to the art of healing. So let us engage in argument, so that we may find the cause of what happens. For it is wonderful how because of our ambition in seeking it it is readily found, as if responding to us. And so I can make the argument more convincing to you I will demonstrate to you from certain other instances, clearly seen in reality, both of things only applied externally to the body and of things taken through the mouth. For we know that people bitten by crocodiles are greatly helped by the fat of the crocodile itself placed on the wounds; and the bites of the field mouse which are also lethal are painlessly healed by the actual mouse ground up and placed on the bite.

όμοίως δὲ καὶ αὐτοὶ οἱ ἐχιόδηκτοι ἀπαλλάττονται τοῦ κινδύνου, εἴ τις αὐτῶν λειώ-247 σας τὰ σώματα ἐπιθείη αὐτοῖς τοῖς τραύμασιν, οὐκ ἀλόγως καθ' ἡμᾶς, ὡς ἔφην, καὶ τῶν τοιούτων γιγνομένων, μήτε τοσαύτην δύναμιν ἐχόντων, ὡς καὶ ἀποκτεῖναι δύνασθαι, κατὰ διάδοσίν τε τῆς δυνάμεως χωρούσης εἰς τὸ βάθος τῶν σωμάτων. ὥσπερ δὴ

- καὶ ἐπὶ τῶν καταπλασμάτων τὸ αὐτὸ γιγνόμενον ὁρῶμεν, τῆς ἐν τοῖς σώμασιν αὐτῶν 5 δυνάμεως συμμέτρου γιγνομένης καὶ θεραπεύειν λοιπὸν, ἀλλ' οὐκ ἀναιρεῖν δυναμένης. τὸ δὲ ἐπὶ τῆς θηριακῆς γιγνόμενον φανερώτερον ἔχει τὸν λογισμόν. φημὶ γὰρ ὅτι διὰ τοῦτο ταῦτα ἀναιροῦντα τὰ θηρία βοηθεῖ τοῖς ὑπ' αὐτῶν δακνομένοις, ἐπειδὴ πλείων αὐταῖς ἐνοῦσα ἡ φθοροποιὸς δύναμις, ταῖς κεφαλαῖς ἀφαιρουμέναις συναποκόπτεται.
- καὶ ἐπεὶ τὴν ἐν τοῖς ἄλλοις σώμασιν αὐτῶν ὑπολειπομένην δύναμιν ταῖς σκευασίαις 10 ἡμεῖς ἀπαμβλύνομεν ἕψοντες αὐτὰς, καὶ τῶν ἀλῶν καὶ τοῦ ἀνήθου οὐκ ὀλίγα τῷ ὕδατι μιγνύντες, οὐχ ἡδύσματος μόνου χάριν τὴν μίξιν τῶν τοιούτων ποιούμενοι, ἀλλ' ἵνα ἐκτήξωμεν τὰ σώματα, καὶ οὕτως αὐτὰ ὀλίγον τὸν ἰὸν, ἢ μηδ' ὅλως ἔχειν ἐργασώμεθα. τὸ δὲ πλεῖστον αὐτῆ τῆς δυνάμεως εἰς τὸ βοηθεῖν ἡ σκευασία παρέχεται.τοσούτοις καὶ
- 248 τοιούτοις μιγνύμενα φαρμάκοις τὰ θηρία, πῶς ἂν ἔτι καὶ ἀναιρεῖν δύναιτο, ἐκλυομένης 15 τῆς οὔσης ἐν αὐτοῖς πρὸς τὸ διαφθεῖραι πονηρίας; ἔτι δ' ἀληθέστερος ὁ λόγος φανήσεται, εἰ καὶ ἐπί τινων ὁμοίων τὴν ἀπόδειξιν αὐτοῦ ποιησόμεθα. ἡ γάρ τοι κανθαρἰς μόνη μὲν διδομένη τὴν κύστιν ἑλκοῖ, καὶ πολέμιον αὐτῆς ἐστι τὸ φάρμακον, καὶ ἀναιρεῖ τῆ ἰσχυρῷ δυνάμει τὸν ἄνθρωπον πολλάκις. μιχθεῖσα δ' ἄλλοις τισὶ πάλιν αὐτῆς τῆς κύστεως βοήθημα γίνεται, καὶ ἔστι διουρητικὴ πάνυ. ὁ δὲ ὀπὸς τῆς μήκωνος ὅτι μέν
  - 20 τους του γινεται, και εστι σισορητική πανό. Ο σε όπος της μηκωνός στι μεν 20 έστιν άναιρετικός ποθεὶς μόνος οὐδεἰς ἀγνοεῖν μοι δοκεῖ. οὗτος δὲ μετ' ἄλλων τινῶν σκευασθεἰς τοῖς νοσοῦσι βοηθεῖ πολλάκις, ὡς σωτηριωδέστατον αὐτοῖς εἶναι φάρμακον. τὰς γοῦν τῶν νεφριτικῶν παρακοπὰς οὐκ ὀλιγάκις ἀγωνιστικῶς ἰάσατο, καὶ τοὺς ἐξ ἀγρυπνιῶν τὴν δύναμιν ἀφηρημένους, ὕπνον ἐργασάμενον, θαυμασίως ἀνεκτήσατο. τοῖς δὲ φαλαγγιοδήκτοις αὐτὰ τὰ φαλάγγια λειωθέντα καὶ μετ' οἴνου πινόμενα ἀπαλλακτικὰ τοῦ κακοῦ γίνεται, ὡς ἐκ τούτου μάλιστά σε πιστεύειν δύνασθαι τῷ ὑπ' ἐμοῦ λεγομένῳ.

<sup>20</sup> Comp. Med. Loc. X: XIII 327.9-15 Comp. Med. Loc. VII: XIII 45.10-11

<sup>1</sup> καὶ] L om. Q<sup>1</sup> 4 τὸ] L om. Chart. Kühn 5 τὸ αὐτὸ] L καὶ αὐτὸ Q<sup>1</sup> edd. 8–9 πλείων αὐταῖς] conieci πλείων αὐτοῖς L πλείων ἐν τοῖς Q<sup>1</sup> corr. in πλείων ἐν τοῦτοις Q<sup>2</sup> 10 σώμασιν] L Q<sup>1</sup> μέρεσιν Q<sup>2</sup> edd. 12 οὐχ ἡδύσματος] Q<sup>2</sup> ἀλλ' ἡδύσματος L Q<sup>1</sup> 14 τοσούτοις] L οὖν post τοσούτοις add. Q<sup>2</sup> 16 δ'] L δὲ καὶ Q<sup>1</sup> 19 τῆ ἰσχυρῷ] Q<sup>2</sup> τῆ ἰσχυρῷ L Q<sup>1</sup> 20 βοήθημα γίνεται] L γίνεται βοήθημα Q<sup>1</sup> edd. 21 ποθεἰς μόνος] L μόνος ποθεἰς Q<sup>1</sup> edd. 26 ὡς ἐκ τούτου] Q<sup>2</sup> (ὡς add. in marg.), edd. ἐκ τούτου L

And in the same way those bitten by snakes are also freed of danger if someone grinds their bodies up and applies them to the very wounds; and it is not unreasonable in my view, as I said, when such things happen, that they do not have such power as to kill, but in view of the distribution of their power, penetrating to the depth of their bodies. And in the case of plasters we see the same thing happening, their power in the body becoming moderated and able from then on to heal but not to kill. What happens in the case of theriac has a clearer explanation. For I say that the reason these lethal beasts help those bitten by them is that the majority of the destructive power in them is cut off with the heads when they are removed; and when we blunt the remaining power in the other parts by our preparation, boiling them, mixing a lot of salt and dill in the water, we add these to the mix not just to make the taste more pleasant but to soften the bodies and so cause them to have very little poison or none at all. The preparation gives it most of its curative power. The beasts are mixed with so many and such kinds of drugs, how could they still be able to kill when its destructive vice has been dissolved out of it? And the argument will be even more true if we make a demonstration of it in other similar cases. For the blister beetle, administered alone, wounds the bladder and is a drug hostile to it and often kills a man by the strength of its power. But mixed with certain other drugs it becomes a help to the very same bladder, and is entirely diuretic. I think everyone knows that poppy juice drunk on its own is poisonous. But prepared with certain other ingredients it often helps the sick so as to be a great life-saving drug to them. For example it has often heroically healed acute attacks of kidney disease, and has wonderfully helped those weak from insomnia by bringing them sleep. For those bitten by spiders the same spiders ground up and drunk with wine become able to stop the harm, and from this you can easily believe what I say.

249 εί γάρ και μόνος ό οἶνος μιχθεις τοῖς θηρίοις τὸν ἀπ' αὐτῶν τῶν θηρίων κίνδυνον ἐκφεύγειν ποιεῖ, δηλονότι καὶ ἡ θηριακὴ ἐκ τοσούτων καὶ τοιούτων τὴν σκευασίαν ἔχουσα παιώνιόν τι φάρμακον μάλλον, άλλ' οὐκ ἀναιρετικὸν τῶν ἀνθρώπων γίνεται. ἐκεῖνο γὰρ ἐν ταῖς μίξεσι τῶν φαρμάκων γιγνόμενον εἰδέναι χρὴ, ὅτι μηκέτι ἀποσώζεται ἡ έκάστου τῶν μιγνυμένων δύναμις, ἡ αὐτὴ μένουσα καὶ ἄτρεπτος, εἰς τὸ μηδὲν ἀλλοι-5 ουμένη, άλλ' ἕνωσίς τις άποτελεῖται τῶν ἁπάντων, ὅλης δι' ὅλων τῆς κράσεως αὐτῶν μιγνυμένης καὶ μιᾶς τινος δυνάμεως ἄλλης ἐξ αὐτῶν γινομένης, ὄνπερ τρόπον ἐστὶν ίδεῖν καὶ ἐπὶ τοῦ οἰνομέλιτος γιγνόμενον. ὅταν γὰρ ἡ κρα̂σις ἀμφοῖν ἀκριβὴς γένηται, οὔτε τὴν τοῦ μέλιτος γεῦσιν τὸ μέλι μιχθὲν ὅλως ἔχει καὶ ὁ οἶνος οὐκέτ' ὢν οἶνος ἐν τῇ μίξει φαίνεται, άλλὰ παρ' ἑκάτερον τῶν συνελθόντων ἄλλο τι, αὐτὸ δὴ τοῦτο οἰνόμελι, 10 γιγνόμενον ἐκ τῆς κράσεως ἀποτελεῖται. τὸ αὐτὸ δή μοι νόμιζε γίγνεσθαι καὶ ἐπὶ τῶν άλλων μεν άπάντων φαρμάκων, και έπι της θηριακής δε αυτής μάλιστα, μηκέτι την ένὸς ἑκάστου τῶν μιγνυμένων δύναμίν τε καὶ ποιότητα αὐτὴν μένειν, ἀλλὰ συγκρινα-250 μένων πασι πάντων καὶ ἕνωσίν τινα φυσικὴν λαμβανόντων μίαν μὲν καὶ λοιπὴν ἄλλην έξ άπάντων τῶν μιγνυμένων τοῦ φαρμάκου γίνεσθαι τὴν φύσιν. 15

XI. Εἰ μὲν γὰρ ἐξ ἀτόμου καὶ τοῦ κενοῦ κατὰ τὸν Ἐπικούρου τε καὶ Δημοκρίτου λόγον συνειστήκει τὰ πάντα, ἢ ἔκ τινων ὄγκων καὶ πόρων κατὰ τὸν ἱατρὸν Ἀσκληπιάδην καὶ γὰρ οὕτος ἀλλάξας τὰ ὀνόματα μόνον καὶ ἀντὶ μὲν τῶν ἀτόμων τοὺς ὄγκους, ἀντὶ δὲ τοῦ κενοῦ τοὺς πόρους λέγων τὴν αὐτὴν ἐκείνοις τῶν ὄντων οὐσίαν εἶναι βουλόμενος· εἰκότως ἂν ἔμενεν ἀναλλοίωτα τὰ φάρμακα, κατὰ μηδὲν τρέπεσθαι μηδ' 20 ὅλως ἐξίστασθαι τῆς αὐτῶν ποιότητος δυνάμενα. ἐπεὶ δ' οὐκ ἔστιν ἀληθὴς ὁ λόγος οὗτος, ὡς δείξομεν, ἀλλ' ἀλλοιοῦται, ὡς ἔφην, τὰ πάντα καὶ τρέπεται ῥαδίως καὶ εἰς ἄλληλα τὴν κρᾶσιν λαμβάνει, ἀνάγκη τῆς κράσεως δι' ὅλων τῶν κιρναμένων
251 γιγνομένης τὸ ἰσχυρότερον τοῦ ἥττονος κρατεῖν, καὶ διὰ τοῦτο ἡμεῖς ταῖς ἐντέχνοις μίξεσι πρὸς τὴν χρείαν τῆς ἐνεργείας τὰς ποιότητας τῶν φαρμάκων ἐναλλάσσομεν, 25

τὰ σώματα.

<sup>17</sup> UP XI:III 873.17–18; UP VI:III 474.16–19

<sup>3</sup> ἀνθρώπων] L ἄλλων Q<sup>1</sup> 8 γιγνόμενον] L γιγνομένου Q<sup>1</sup> 11 καί] L om. Q<sup>1</sup> edd. 12 αὐτῆς μάλιστα] L μάλιστα αὐτῆς Q<sup>1</sup> edd. 18 οὕτος] L οὕτως edd.

For if wine alone mixed with wild beasts produces a means of escape from the danger from those very wild beasts, it is clear that theriac also, being made up of so many and varied ingredients, becomes a healing drug and not one destructive of men. For you should know that when drugs are mixed, the power of each ingredient is no longer preserved remaining unchanged, and the same, and in no way altered, but there is a kind of unification of all the parts, the whole thing being mixed and a single new effect arising out of those others, just as we can see happening in the case of oinomel. For if the two are correctly blended, the honey in the mixture no longer tastes completely of honey, and the wine in the mix no longer seems to be wine, but as both come together with each other some third thing, oinomel, results from the mixing. So please believe, as I do, that the same thing happens in the case of all other drugs, especially theriac itself, and that the power and quality of each individual one of the ingredients of the mixture no longer remains, but they are all mixed up with each other and achieve a kind of natural union and another single residual nature of the drug arises from the mixture of all.

XI. For if everything were made up of atom and void as in the theories of Epicurus and Democritus or of masses and pores as the doctor Asclepiades contends (for he just changes the names and says "masses" instead of "atoms" and "pores" instead of "voids", and means the same as they do in describing the nature of reality) it would be reasonable to think that the drugs would remain unaltered, not having the ability to be changed on any account or wholly altered from their previous quality. But as this theory is untrue, as I will show, and they are all changed and transformed, as I have said, and take each other into combination, it inevitably follows that as the mixture is made up of all its constituents the stronger elements will overpower the weaker, and therefore by skilfully mixing with a view to exploiting their effect as we require we change the qualities of the drugs, which could not happen if the constituent parts of reality were small and unalterable and unchangeable.

διόπερ δỳ καὶ πολλάκις ἐγὼ τεθαύμακα πῶς ὁρῶντες ἐπὶ τοῦ παντὸς οὕτω γενομένας ταχείας τροπὰς καὶ τỳν τοσαύτην ἐν ταῖς κράσεσι μεταβολỳν, εἶθ' ὑπομένουσιν ἀρχὰς τῶν ὅλων τὰς τοιαύτας τίθεσθαι, καὶ μάλισθ' ὁ εἰρημένος ἰατρὸς Ἀσκληπιάδης· πρὸς τοῦτον γὰρ οἰκείως μᾶλλον ποιήσομαι τὸν λόγον, ἐπεὶ καὶ φανερωτέρας ἐν τῷ σώματι

- τροπάς τε καὶ μεταβολὰς οὐκ ἀποδέχεται. τί γάρ ἐστιν εἰπεῖν, ὅταν μόνου τοῦ δακτύ-5 λου εἰς ψυχρὸν ὕδωρ κατατεθέντος ὅλου τοῦ σώματος ἐν τάχει ἡ τροπὴ γίνηται; ἢ ὅταν ταῖς τῶν ἀνέμων μεταβολαῖς συμμεταβάλληται ἡμῶν τὰ σώματα; ἔγωγ' οὖν οἶδα τῶν μὲν ἑταίρων τινὰ ἐπὶ τοῦ σκίμποδος ἔτι κατακείμενον ἐκ τῆς περὶ τὴν κεφαλὴν ἑαυτοῦ συναισθήσεως διαγινώσκοντα τοῦ ἀνέμου τὴν πνοήν. εἴ ποτε γὰρ ἐκαρηβάρει,
- 252 εὐθέως ἐγίνωσκεν ὅτι νότος ὁ πνέων ἀνεμος ἦν. καὶ ἀκούσασα μόνον βροντῆς γυνὴ 10 ἐγκύμων καὶ θεασαμένη φοβερόν τι θέαμα, ἐξέβαλε τὸ παιδίον. ἔσθ' ὅτε δὲ καὶ βοηθεῖν ὀξέως θέλοντες καὶ ταχεῖαν τῷ νοσοῦντι τοῦ βοηθήματος τὴν αἴσθησιν γενέσθαι, ταχίστην ὁρῶμεν γιγνομένην τῶν σωμάτων τὴν τροπήν. ἐπὶ γοῦν τινων ἐκλελυμένων σφόδρα ὀξυθυμίαν τινὰ τῷ ἀρρώστῷ ὁ θαυμάσιος Ἱπποκράτης γίνεσθαι συμβουλεύει,
  - ϊνα τῷ εὐτόνῳ τῆς ὁρμῆς τὸ ἄτονον τῆς ἐκλύσεως ἰασώμεθα. πολλάκις δὲ καὶ ὀλίγη 15 τις αὐτοῖς προσενεχθεῖσα τροφὴ εὐθέως ἀνέρρωσε καὶ τὴν δύναμιν αὐτῶν εὐτόνωσε, τῆς τροφῆς τοῦ σώματος, ὡς οἶμαι, ταχέως ἐπὶ τὸ κρεῖττον γιγνομένης, ἀλλ' οὐχὶ τῶν ὄγκων ἀπαθῶν ὑπαρχόντων, καὶ διὰ τοῦτο τὴν αἴσθησιν ἡμῖν τῶν τοιοὑτων παρέχειν μὴ δυναμένων. τίς γὰρ ἐν τοσούτῳ τάχει τοὺς ὄγκους συντιθέναι δυνήσεται; ἢ τίς
- οὕτως ἐξ ἀπαθῶν τῶν ὄγκων συγκείμενος ταχέως τῶν προσπιπτόντων αἰσθήσεται; ἡ 20 γὰρ ποιὰ τῶν ὄγκων μετατιθεμένων σύνθεσις τοῦ μὲν σχήματος ἀλλαγὴν μόνην ἐργά-253 ζεται, ἀλλοίωσιν δὲ καὶ ποιότητα ἄλλην ἐξ ἄλλης γεννῆσαι ἀδυνατεῖ. καὶ διὰ τοῦτο ἐδόκει μοι τὸν ἄνδρα μὴ μόνον τὸ ἐπὶ τῶν φαρμάκων γιγνόμενον ἀκολούθως ἀναιρεῖν διὰ τὴν ἀκολουθίαν τοῦ δόγματος, ἀλλὰ καὶ τὴν φύσιν αὐτὴν τὴν διοικοῦσαν ἐν ἡμῖν τὰ πάντα μηδὲν εἶναι οἴεσθαι. ἕκαστα γὰρ τῶν γιγνομένων ἐκ τῆς τῶν ὄγκων συνθέσεως 25 καὶ συμπλοκῆς γίγνεσθαι βούλεται.

<sup>10</sup> Hipp. Epid. III II:XVIIa 635.8-10

<sup>2</sup> ταχείας] Q<sup>2</sup> τραχείας L Q<sup>1</sup> 3 ὁ εἰρημένος] L ὁ νῦν Q<sup>1</sup> εἰρημένος add. in marg. post νῦν Q<sup>2</sup>, ὁ νῦν εἰρημένος edd. ὁ νῦν Y ὁ μείων N 5 οὐκ ἀποδέχεται] conieci οὐχ ἐνδείκνυται Q<sup>2</sup> οὐκ ἐνδείκνυται edd. ἐχων δείκνυται L Q<sup>1</sup> 6 γίνηται] Kühn γίγνεται L N γίνεται Q<sup>1</sup> Ald. Crat. 7 συμμεταβάλληται] L Kühn συμμεταβάλλεται Q<sup>1</sup> Ald. Crat. Chart. 20 συγκείμενος ... αἰσθήσεται;] om. N 24 ἀλλὰ] add. in marg. Q<sup>2</sup> abest in L 25 εἶναι] Q<sup>2</sup> εἰδέναι L Q<sup>1</sup>

So I have often been amazed at how, seeing in every case such rapid alterations happening and so great a change of constitution, they can stand their ground in positing that such things are the basic constituents of everything; and especially at Asclepiades the doctor I have mentioned. I will address my discourse to him specifically, since he does not accept the existence of even the more obvious changes and alterations in the body. For what explanation can be given of the fact that when just a finger is put into cold water, a change of the whole body quickly occurs? Or that our bodies change in sympathy with changes in the wind? I know someone, one of my friends, who can tell while he is still lying in bed the direction of the wind from a feeling in his head. For if ever he was heavy in the head, he immediately knew there was a south wind blowing. And a pregnant woman, just hearing thunder and seeing some fearful sight, has been known to miscarry her child. And sometimes when we keenly wish to help a patient and want him quickly to experience the benefit of treatment, we see a very quick bodily change happen. For example in certain cases of weakness the great Hippocrates advises that a certain excitability should be induced in the patient so that we can cure the slackness of enfeeblement by the intensity of the onslaught. Often if a little food is brought to them it immediately strengthens them and tones up their constitution, because, I think, the food quickly comes to increase the strength of the body, not of some underlying particles which are insensible and therefore cannot produce in us the perception of such things. For who will be able to arrange the particles with such speed? Or who being made of insensible particles in this way will be able to perceive rapid events? For any sort of arrangement of added particles only produces a change of shape, but cannot produce a transformation or generate one quality from another. And I used to think this man not only does away with what happens in the case of drugs by following his dogma, but also thought the very nature which is in us amounted to nothing. For he wants each thing that happens to arise from the aggregation and interweaving of particles.

διόπερ καὶ θαυμάζειν ἐπέρχεταί μοι, ὅταν αὐτὸν ὁρῶ τὰ οὕτω θαυμαστὰ τῆς φύσεως ἔργα μὴ βλέποντα, καὶ μάλιστα τὰς ἐξ ἀρχῆς ἐν αὐτῆ τῆ γενέσει τοῦ ἀνθρώπου γιγνομένας τέχνας, ὅπως μὲν διαπλάττεται τὸ ἔμβρυον ἐν τῷ τῆς μήτρας τόπῳ, ὅπως δ' ἂν καὶ διαπλασθὲν εὐμηχάνως τρέφει, ὅσοις δὲ καὶ οἵοις αὐτὸ τοῖς ἁπαλωτάτοις

- δεσμοῖς ἄχρι τοῦ ὡραίου τόκου ἔνδον κρατεῖ, οἴα δέ τινι θεία τέχνη καὶ ὁμοιότητα 5 τύπων ἐν τοῖς γεννωμένοις ἐργάζεται, ἐφ' οῦ μάλιστα καὶ ἡ τῶν ὄγκων ὑπόθεσις αὐτοῦ ἀσχημόνως ἐλέγχεται. οὐ γὰρ μόνοις τοῖς γεννῶσιν, ἀλλὰ καὶ προγόνοις τισὶ τὰ τικτόμενα ὅμοια γίνεται. ἐμοὶ δὲ καὶ λόγος τὶς ἀρχαῖος ἐμήνυσεν ὅτι τῶν ἀμόρφων τὶς 254 δυνατῶν εὔμορφον θέλων γεννῆσαι παῖδα, ἐποίησε γράψας ἐν πλατεῖ ξύλῳ εὐειδὲς
- ἄλλο παιδίον, καὶ ἔλεγε τῇ γυναικὶ συμπλεκόμενος ἐκείνῷ τῷ τύπῷ τῆς γραφῆς 10 ἐμβλέπειν. ἡ δὲ ἀτενῶς βλέπουσα καὶ ὡς ἔστιν εἰπεῖν ὅλον τὸν νοῦν ἔχουσα οὐχὶ τῷ γεννήσαντι, ἀλλὰ τῷ γεγραμμένῷ ὅμοιον ἀπέτεκε τὸ παιδίον, τῆς ὄψεως, οἶμαι, διαπεμπούσης τῇ φύσει, ἀλλ' οὐκ ὄγκοις τισὶ τοῦ γεγραμμένου τοὺς τύπους. ἐπεὶ δὲ ἀμύητος τῶν τοιούτων τῆς φύσεως μυστηρίων ὁ ἀνὴρ εἶναι διὰ τοὺς ὄγκους ὑπομένει
  - καὶ διὰ τὸ ἀφανές τε καὶ ἄδηλον τῆς ὄψεως τοὺς ἑαυτοῦ μαθητὰς πιστεύειν τοῖς οὕτω 15 θαυμασίοις ἔργοις οὐκ ἐậ, ἐπὶ τὰ ἔξωθεν αὐτὸν καὶ παντάπασι φαινόμενα μεταβάλλειν βούλομαι. τίς γὰρ τὰς ὑπὸ τοῦ ζώου τῆς ἀράχνης γιγνομένας τέχνας βλέπων ἀπιστεῖ καὶ τὴν διὰ τῶν οὕτω διαφανῶν τε καὶ λεπτῶν νημάτων γιγνομένην ὑπ' αὐτῆς ὑφὴν, ὡς καί τινας λέγειν τὴν ὑφαντικὴν τοὺς ἀνθρώπους λαβόντας τὸ πρῶτον παρ' αὐτῆς ἔχειν; τίνα δ' οὐ πείθει λέγειν θαυμάσιόν τι χρῆμα τὴν φύσιν ὑπάρχειν ὁρῶντα τὸ 20
- 255 ὑπὸ τῆς ἄρκτου γιγνόμενον ἔργον; ἀποτίκτει μὲν ἡ ἄρκτος ἄπασι τοῖς γεννωμένοις ὑμοίως ζώοις. ἔστι δὲ σὰρξ μόνη γεννωμένη ἄπλαστός τε καὶ ἀδιάρθρωτος, μορφὴν μὲν οὐδεμίαν ἔχουσα, εὐθὺς δὲ ὑπὸ τῆς γεννώσης τῆ φυσικῆ τέχνῃ διατυπουμένη. τῆ γὰρ γλώττῃ ὥσπερ χειρί τινι χρωμένη ἡ τεκοῦσα οὕτω μεμορφωμένον ζῶον τὸ τεχθὲν ἀποτελεῖν. ἀλλὰ πρὸς μὲν τούτους παύσομαι λέγων. καὶ γὰρ εἴωθα ἐν τοῖς φιλοτίμοις 25 λόγοις ὥσπερ τινὶ χαλινῷ, καθάπερ τῷ μέτρῷ ἵππου τινὸς γαύρου τρέχοντος, τοῦ λόγου αὐτοῦ εὐτόνως κρατεῖν.

<sup>8</sup> Soranus *Gyn.* I.39 (1) 3–6 Heliodorus *Aethiopica* 4.8.5 17 *UP* I: III 7.14–18 20 *Comp. Med. Loc.* I: XII 425.16–426.1; Pliny *NH* VIII 126.4–6; Ovid *Metamorphoses* 15.379–380; Gellius *Noctes Atticae* 17.10.3.1–2

<sup>4</sup> τρέφει] conieci τρέψει L Q<sup>1</sup> τρέφεται Q<sup>2</sup> 5 όμοιότητα] conieci όμοιότητι codd.edd. 6 τύπων] L, Q<sup>1</sup> τύπον Q<sup>2</sup> τύπων, o supra lin. Y || γεννωμένοις] L γεννομένοις Q<sup>1</sup> 9 δυνατῶν] L δυνατὸς Q<sup>2</sup> edd. 11 ἀτενῶς] L ἀτενὲς Y, ἀτενὲς Q<sup>2</sup> ἀτηνὲς M Q<sup>1</sup> 12 ὅμοιον] L ὁμοίως Q<sup>1</sup> edd. 18 γιγνομένην] Q<sup>2</sup> γιγνομένων L Q<sup>1</sup> 21 μὲν] L γὰρ post μὲν add. in marg. Q<sup>2</sup> 25 τούτους] Q<sup>2</sup> τούτοις L Q<sup>1</sup> || φιλοτίμοις] Crat. φυλοτίμοις Q<sup>2</sup> φυτοτίμοις M Q<sup>1</sup> Ald. φιτοτίμοις L φιτοτίμοις (φοιτοτίμοις in marg.) N 26 τῷ μέτρῷ] L; post τρέχοντος transp. Q<sup>2</sup>

And so it causes me amazement whenever I see him failing to see such wonderful works of nature, and especially the clever contrivances arising from the very beginning in the creation of a human being, the way in which the embryo is moulded in the mother's womb, and, once moulded, how cleverly nature feeds it, and the number and kinds of soft fetters with which she holds it in place till the time of birth, and with what divine skill and resemblance she strikes an impression on the new born, a case where his theory of particles is embarrassingly disproven. For babies resemble not just their parents, but sometimes their ancestors. And I have heard an old story that a powerful, ugly man wanted to breed a good looking child, and had a picture of an attractive baby drawn on a flat piece of wood, and told his wife, while he was making love to her, to keep looking at that image in the drawing. And she kept intently looking, and kept pretty much all her mind not on her husband but on the child in the drawing, and gave birth to a child like it; and in my opinion the impression of the likeness was transmitted by sight, in accordance with nature but not by means of any particles. And when this man Asclepiades, not initiated into such mysteries of nature, maintains that these things happen by virtue of particles, and because of his dimness and uncertainty of vision does not allow his students to believe in such wonderful works of nature, I want to turn his attention towards facts about the external world which are obvious to absolutely everyone. For who does not believe in the power of nature, seeing the skills of that animal, the spider and how she makes a web from such diaphanous and slender threads, so that some even say that mankind first got the art of weaving from her? And who is not persuaded to say that nature is a wonderful thing by seeing the work of the she-bear? For the bear gives birth to young, just as all living creatures which propagate by breeding do. But just one lump of flesh is born, unmoulded and not articulated, and without any sort of shape, but is immediately given shape by the mother by her the skill provided to her by nature. For using her tongue like a sort of hand the mother produces a formed cub. But I will say no more on this subject. For in my ambitious discourses I am used to using as it were a bridle for a spirited horse at the gallop, to keep by moderation a firm hold on the discourse itself.

XII. Ἐπιδείξας δὲ, ὡς οἶμαι, σαφῶς μηκέτι εἶναί σοι θαυμαστὸν τὰ θηρία αὐτὰ καὶ ἀναιρεῖν καὶ βοηθεῖν δύνασθαι, διὰ τὴν ποικίλην σκευασίαν τε καὶ μίξιν τῶν συμμιγνυμένων αὐτοῖς φαρμάκων, μετὰ τοῦτο λοιπὸν τὴν ἀντίδοτον σκευάζειν ἄρξομαι. οὐ γάρ ἐστιν ὀλίγη καὶ ἡ ἐν τῆ σκευασία αὐτῆς γιγνομένη ὑφ' ἡμῶν τέχνη. ἥ τε γὰρ ἐν

- 256 τοῖς θηρίοις πολλάκις ὑπὸ τῶν θηρευόντων αὐτὰ γιγνομένη πανουργία καὶ ἡ ἐν τοῖς 5 ἄλλοις μίγμασι τῶν σκευαζόντων ἀπειρία ἄχρηστον πολλάκις ἐποίησε τὸ φάρμακον. πολλοὶ γὰρ αὐτῶν τὴν περὶ τὸ θηρεύειν τέχνην ἐπιδείκνυσθαι βουλόμενοι, καὶ μάλισθ' ὅσοι καὶ φάρμακά τινα πρὸς τὰ τοιαῦτα εὑρίσκειν ἐπαγγέλλονται, τὸ μὲν ἔχειν τὰ φάρμακα ψεύδονται. οὐ γὰρ εὕρομέν ποτε ἡμεῖς αὐτοὺς ἔχοντας, διὰ δὲ τοῦ πανουργεῖν τὰ
  - θηρία τοὺς ὁρῶντας πλανῶσι, πρῶτον μὲν αὐτὰ θηρεύοντες οὐ τῷ δέοντι καιρῷ, ἀλλὰ 10 μετὰ πολὺν τῆς φωλειᾶς τὸν χρόνον, ὅτε μηκέτ' ἐστὶν ἀκμαῖα. λαβόντες δὲ αὐτὰ καὶ προεθίζουσιν ἑαυτοῖς πολλάκις καὶ τρέφουσιν οὐ ταῖς εἰθισμέναις τροφαῖς, ἀλλὰ σάρκας αὐτοῖς ἐπιδιδόντες καὶ συνεχῶς ἐνδάκνειν ἀναγκάζοντες, οὕτως ἐκ τοῦ στόματος αὐτῶν κενοῦσθαι ποιοῦσι τὸν ἰὸν καὶ δὴ καὶ μάζας τινὰς ἐπιδιδόντες αὐτοῖς ἐμφρατ-
- τούσας τῶν ὀδόντων τὰ τρήματα καὶ οὕτω τούτων ἀσθενῆ γίνεται τὰ δήγματα, ὡς 15 θαυμάζειν πάνυ τοὺς ὁρῶντας τὴν τοιαύτην αὐτῶν εἰς τὸ πανουργεῖν τέχνην οὐκ εἰδότας· ὁμοίως δ' αὖ καὶ ἡ περὶ τὰ φάρμακα τῶν μιγνυμένων, ὡς ἔφην, ἀπειρία οὐκ ἔστιν 257 ὀλίγη. αὐτίκα γέ τοι περὶ τὰ κάλλιστα τῶν ἐμβαλλομένων, κασσίαν λέγω καὶ τὸ κιννάμωμον αὐτὸ, οὐκ ὀλίγη τίς οὖσα διαφορὰ, πολλοὺς τῶν σκευαζόντων εἴωθε πλανậν. τό
  - τε γὰρ καλούμενον ψευδοκιννάμωμον ὅμοιόν ἐστι τῷ ἀληθεῖ, κατὰ δὲ τὴν γεῦσιν καὶ 20 τὴν ὀσμὴν πολὺ ἐνδεέστερον εὑρίσκεται. τὸ δὲ ξυλοκιννάμωμον διαφέρει τῷ ξυλῶδες εἶναι καὶ ἰσχυρὰς τὰς ῥάβδους ἔχειν καὶ οὐχ ὁμοίαν τὴν εὐωδίαν. καὶ αὐτοῦ δὲ τοῦ ἀληθινοῦ κινναμώμου τὸ μὲν ἐν τοῖς ὄρεσι γιγνόμενον, οὐκ ὂν λεπτὸν οὐδὲ μακρὸν, μᾶλλον κιρρόν ἐστι τῆ χροιῷ. ἕτερον δἑ ἐστι ποσῶς μέλαν καὶ ὥσπερ ἶνας ἔχον τινάς.

 <sup>11</sup> τον χρόνον] Q<sup>2</sup> των χρόνων vel χρονίων L των χρονίων N των χρόνων M Y Q<sup>1</sup> 14 ἐπιδιδόντες αὐτοῖς]
 L αὐτοῖς ἐπιδιδόντες Q<sup>1</sup>, edd. 19 οὖσα] L ἐστι Q<sup>1</sup> || πολλοὺς] L καὶ add. in marg. ante πολλοὺς Q<sup>2</sup>

XII. Having shown, I think, clearly that there is no longer anything for you to wonder at in the fact that the same wild beasts can both kill and heal, because of the subtle preparation and blending of drugs mixed with them, I will move on to the subject of preparation of the antidote. For we have developed considerable skill in the preparation of it. For fraud as to the identity of the beasts on the part of those who hunt them, and inexperience as to the other ingredients on the part of those preparing the drug, have often rendered the drug useless. For many of them want to show off their skill in hunting, particularly those who claim that they have discovered certain drugs which help them in snake-catching, lie about having the drugs. For we never find they actually have them, but they mislead the onlookers by their roguery in the matter of the wild beasts, first hunting them not at the right season, but after a long period of hibernation, when they are no longer in peak condition. They take them and repeatedly habituate them to their company, and feed them on unaccustomed foods, and freely give them meat and force them to bite continuously, making them empty their mouths of poison, and in addition they give them barley cakes, which block up the holes in their teeth so that their bite becomes weak; and this makes onlookers marvel, not knowing of their skill in knavery. Likewise again, there is, as I have said, a great deal of inexperience about the drugs which go into theriac. For example there is much disagreement about the finest of the ingredients, I mean cassia and the true cinnamon, and this deceives many blenders. And what is called false cinnamon is similar to the real thing, but in taste and smell is found to be much inferior. Wood-cinnamon differs in being woody and having strong stems and not having the same sweet smell. And of the true cinnamon, that which grows in the mountain and is neither fine nor long, is rather yellow in colour. Another sort is rather black and has something like sinews.

άλλο τι λευκόν εύρίσκεται άκριβώς καὶ οὐ σκληρὸν, ῥૡδίως θραυόμενον καὶ μικρἀν ἔχον τὴν ῥίζαν. ἔστι δέ τι καὶ τῇ κιρρậ κασσία ὅμοιον ἕτερον λεῖον καὶ εὐώδες. τὸ δὲ πάντων κάλλιστόν ἐστι τὸ μόσυλον ὑπὸ τῶν ἐγχωρίων οὕτω καλούμενον, τεφρῶδες τῇ χροιậ καὶ λεπτὰ ἔχον τὰ ῥαβδία καὶ τοὺς ὄζους πυκνοὺς, σφόδρα εὐῶδες, ὃ

- καὶ μάλιστα προκρίνειν ἡμεῖς εἰώθαμεν. ἔστι γὰρ πάνυ τῆ ὀδμῆ κάλλιστόν τε καὶ 5 258 ἥδιστον καὶ τῆ γεύσει δριμὺ ἡμῖν κατα φαίνεται καὶ δηκτικὸν λίαν, καὶ διαμασώμενον πηγανίζειν δοκεῖ. ἔστι δὲ καὶ λεῖον καὶ ῥαδίως θραύεσθαι δυνάμενον. ἡ δὲ κασσία καὶ αὐτὴ, εἰ μή τις ἔμπειρος εἴη περὶ τὴν κρίσιν, πλανậν εἴωθε πολλάκις. ἔστι γάρ τις καὶ ψευδοκασσία πάνυ μὲν ἐμφερὴς τῆ ἀληθινῆ κασσία, οὐκ ἔχουσα δὲ τὴν τοιαύτην
  - εὐωδίαν, ἀλλὰ καὶ ὁ φλοιὸς αὐτῆς συνηνωμένος τῆ ἐντεριώνῃ εὑρίσκεται, ὡς ἥ γε 10 καλλίστη κιρρά τε καὶ ῥοδίζουσα, ὥσπερ καὶ ἡδὺ τὸ γευστικὸν ἐν τῆ γεύσει ποιουμένη, συριγγώδης τε οὖσα καὶ οἰνίζουσα καὶ πολὺ τὸ ἀρωματίζον ἔχουσα, γίζι ὑπὸ τῶν ἐπιχωρίων οὕτω λεγομένη. εἰκὸς δέ σε καὶ τὴν περὶ τὸ μακρὸν πέπερι γιγνομένην πανουργίαν μὴ ἀγνοεῖν. ἀναπλάσσοντες γάρ τινες αὐτὸ ἴσον τῷ ἀληθεῖ ἔχον τὸ μῆκος
- καὶ ἐνθέντες αὐτῷ τοῦ πυρέθρου ἢ τοῦ νάπυος ὀλίγον, οὕτω τῷ δηκτικῷ τῆς γεύσεως 15 πλανῶσι τὸν γευόμενον. ἀλλ' ὁ περὶ ταῦτα τριβακὸς ὢν καὶ τὸ ἥδιόν τε καὶ δριμὺ ἐν τῆ γεύσει μὴ ἀγνοῶν, ἔτι τε καὶ τὴν ἀπὸ τοῦ δένδρου ῥίζαν προσκειμένην αὐτῷ 259 περιεργότερον βλέπων, ῥαδίως εὑρίσκει τὸ ἀληθινὸν πέπερι καὶ πλανᾶσθαι ὑπ' αὐτῶν οὐ δύναται. πολλῆς δ' οὕσης καὶ ἐν τοῖς ἄλλοις ἅπασιν ἀκριβείας, ὥσπερ καὶ ἐν
- τούτοις ίστόρησά σοι, ἐγὼ μὲν καὶ ταῦτα πρὸς τὴν τοῦ λόγου ὑπόμνησιν ἀρκεῖν 20 νομίζω, ἵνα μὴ μακρὸν ἡμῖν τὸ βιβλίον γένηται. συμβουλεύω δὲ, ἕκαστον αὐτῶν ἀκριβῶς δοκιμάζοντα οὕτω σκευάζειν τὸ φάρμακον. ἡ γὰρ ἑνός τινος κακία πολλάκις διαφθείρει τὰ πάντα. ἔστι δὲ αὐτοῦ καὶ γραφὴ, ἵνα μηδὲ τοῦτο ἀγνοῆς, διαφόρως ὑπὸ τῶν ἰατρῶν γινομένη. ὁ μὲν γὰρ Ἀνδρόμαχος, ἀκριβὴς περὶ τὰ φάρμακα γενόμενος, οὗπερ καὶ πρότερον ἐμνημόνευσα, κατὰ ταύτην τὴν γραφὴν ἐσκεύασε τὸ φάρμακον. 25 Ἀρτίσκων θηριακῶν δραχμὰς κδ΄. ἀρτίσκων σκιλλητικῶν δραχμὰς μη΄.

**<sup>3</sup>** Dsc. de Materia Medica I 14 (1)–(2) **11** Comp. Med. Loc. VIII: XIII 185.16 Comp. Med. Gen. VII: XIII 1030.14 **12** Ant. I: XIV 72.14–73.2 **14** San. Tu. IV: VI 268.13–270.7

<sup>3</sup> κάλλιστόν] Q<sup>2</sup> κάλλιόν L || μόσυλον] Q<sup>1</sup> μόσσυλον edd μο λον L M N μο χον Y || ύπὸ] Q<sup>1</sup> ὑπὲρ L 8 κρίσιν] Q<sup>2</sup> κρᾶσιν L Q<sup>1</sup> 11 καὶ] ἔστι Y 12 γίζι] Arab. (gīzī) ζιγγίβερ codd. edd. 13 λεγομένη] Q<sup>1</sup> λυομένη L καλουμένον M καλουμένη N 18 ῥαδίως] om. Q<sup>1</sup> edd. 21 ἡμῖν τὸ βιβλίον] L τὸ βιβλίον ἡμῖν Q<sup>1</sup> edd. 25 ἐσκεύασε] L ἐσκεύαζε Q<sup>1</sup>

Another sort is pure white and not hard, easily wounded and with a small root. And there is another one which is like yellow cassia and is smooth and sweetly scented. But best of all is what the locals call mosulon, with ash-coloured bark and slender stems and thick roots, very sweet scented, which we prefer over all others. For it has much the finest and sweetest scent, and is sharp tasting and very pungent and, when chewed, seems to taste of rue. It is also smooth and easily wounded. Cassia itself often misleads those without experience in distinguishing it. For there is a false cassia very like true cassia but it is without such a sweet scent, and its bark is stuck to the heartwood. The best cassia is vellow and rose-like and produces a sweet taste for the sense of taste and is like a reed and resembles wine and is strongly scented, called gizi by the locals. And it is suitable for you also to know the trickery which goes on around the long pepper. For some reshape it, making it the same size as the true pepper, and add a bit of pellitory or mustard, and so deceive the taster with the biting taste. But the man with experience in these matters, who recognises the sweetness and sharpness in the taste and who takes a careful look at the tree root attached to it, recognises true pepper and is not deceived by them. And there is as much need for accurate knowledge in all other cases as what I have told you in this one; but I think what I have told you raises the subject adequately for our argument, so that our book does not become too long. But I advise that you test each ingredient carefully when making the drug; for a defect in one ingredient often spoils the whole thing. The recipe for theriac, so that you should know this, varies between doctors. For Andromachus, a man with a precise knowledge of drugs, whom I have mentioned before, prepared the drug like this: theriac pastilles—24 drachms; squill pastilles—48 drachms;

πεπέρεως μακροῦ δραχμὰς κδ'. ὀποῦ μήκωνος δραχμὰς κδ'. ἡδυχρόου μάγματος δραχμὰς κδ'. ῥόδων ξηρῶν δραχμὰς ιβ' ἴρεως, Ἰλλυρικῆς βουνιάδος ἀγρίας σπέρματος, σκορδίου, ὀποβαλσάμου, κινναμώμου, ἀγαρικοῦ ἀνὰ δραχμὰς ιβ', πεπέρεως λευκοῦ,ῥήου, σμύρνης, κόστου, κασίας, ναρδοστάχυος, σχοίνου ἄνθους, λιβάνου, δικτά-

- 260 μνου, πρασίου, στοιχάδος, πετροσελίνου Μακεδονικοῦ, καλαμίνθης, τερμινθίνης, ζιγ- 5 γιβέρεως, πενταφύλλου ῥίζης, πολίου ἀνὰ δραχμὰς στ'. πεπέρεως μέλανος δραχμὰς κδ'. χαμαιπίτυος δραχμὰς δ'. στύρακος δραχμὰς δ'. ἀμώμου βότρυος δραχμὰς δ', νάρδου Κελτικῆς, Λημνίας σφραγίδος, φοῦ, χαμαίδρυος, φύλλων μαλαβάθρου, χαλκίτεως ὀπτῆς, γεντιανῆς, ἀνίσου, ὑποκιστίδος χυλοῦ, βαλσάμου καρποῦ, κόμμεως, μαράθρου σπέρματος, καρδαμώμου, σεσέλεως, ἀκορου, κρόκου, ἀκακίας, θλάσπεως, ὑπερ- 10
- 261 πάντα μέν τοῦς τῶν μεμιγμένων μέτροις. τινὰ γὰρ ῶν ἐκεῖνοι πέμπουσι τῷ φαρμάκῳ,
   261 πάντα μέν τὰ μίγματα τούτοις ὁμοίως μίγνυσι τῆ σκευασία τοῦ φαρμάκου,
   δὶ αὐτοῖς ἐν τοῖς τῶν μεμιγμένων μέτροις. τινὰ γὰρ ῶν ἐκεῖνοι πέμπουσι τῷ φαρμάκῳ,
  - ἀνὰ δραχμὰς δ'. ἔχοντα, οὕτος ἀνὰ δραχμὰς β'. μίγνυσι τῷ φαρμάκῳ, καὶ πάλιν τῶν 20 ἀνὰ δραχμὰς β'. τὴν συσταθμίαν ἐχόντων, αὐτὸς ταῦθ' ἴστησιν ἀνὰ δραχμὰς α'. ἔχοντα. Μάγνος δὲ, ὁ καθ' ἡμᾶς ἀρχίατρος γενόμενος, τὰ ἄλλα πάντα ὁμοίως τοῖς ἀνδράσι τούτοις ἐν τῆ σκευασία φυλάττων, ἐν τῷ κινναμώμῳ μόνον αὐτοῖς διαφωνεῖ. τὸ γὰρ διπλοῦν τῆς περὶ τούτων συσταθμίας μίγνυσιν αὐτὸς τῷ φαρμάκῳ, οὕτως δὲ καὶ περὶ τῆς χαλκίτεως, οὕτως δὲ καὶ περὶ τοῦ σαγαπηνοῦ καὶ τῷ Ἀνδρομάχῳ διαφωνεῖ.

## 19 Ant. I: XIV 99.14-100.3

<sup>1</sup> πεπέρεως μαχροῦ δραχμὰς κδ'.] L Q<sup>1</sup>del Q<sup>2</sup> sed rescribit sup. lin. 2 ιβ'] L Q<sup>2</sup> κδ'Q<sup>1</sup> || 'Ιλυρικῆς ] L Q<sup>2</sup> add. in marg. γλυκυρρίζης post ἴρεως 'Ιλυρικῆς 4 ῥήου] L del. Q<sup>2</sup> || κόστου, κασίας,] L κόστου, κρόκου, κασσίας Q<sup>2</sup> (κρόκου add. in marg), edd. || ναρδοστάχυος] conieci vel νάρδου στάχυος vel στάχυος νάρδου sunbul hindī Arab. στάχυος L νάρδου Q<sup>2</sup> sup.lin., edd || λιβάνου] L πεπέρεως λευκοῦ καὶ μέλανος Q<sup>2</sup> add. in marg. post λιβάνου 5 πρασίου] L ῥήου Q<sup>2</sup> add. in marg. post πρασίου 6–7 πεπέρεως μέλανος δραχμὰς κδ'] L, del. Q<sup>2</sup> 7 ἀμώμου βότρυος] L μήου Q<sup>2</sup> add. in marg. post βότρυος 8 φοῦ] L Ποντικοῦ Q<sup>2</sup> add. in marg. post φοῦ || χαμαίδρυος] L Κρητικῆς Q<sup>2</sup> add. sup. lin. post χαμαίδρυος || φύλλων] L, Q<sup>2</sup> (corr. sup. lin. -ου in -ων), 10 ἄκορου, κρόκου, ἀκακίας, κρόκου del. ἀκορου, κρόκου Q<sup>2</sup> 11 ἀμμεως, σαγαπηνοῦ] L Q<sup>1</sup> σαγαπηνοῦ, ἄμμεως Q<sup>2</sup> 18 μίγνυσι] L έν post μίγνυσι add. in marg. Q<sup>2</sup> 25 περὶ τοῦ σαγαπηνοῦ καὶ] L, del. καὶ Q<sup>2</sup>

long pepper—24 drachms; poppy juice—24 drachms; sweet scented sediment—24 drachms; dried roses—12 drachms; Illyrian iris (orris root), liquorice, French turnip seed, garlic germander, balsam tree, cinnamon, agaric—12 drachms each; myrrh, Saussurea Lappa, crocus, cassia, nard, reed flower, frankincense, white and black pepper, dittany, horehound, rhubarb, cassidony (Lavandula Stoechas), Macedonian parsley, mint, terebinth, ginger, cinquefoil root—6 drachms each; hulwort (Teucrium Polium)—4 drachms; ground pine—4 drachms; storax—4 drachms; cardamom, grapes, bald money (spignel, Meum athamanticum), Celtic nard, Lemnian sealed earth, Pontic spikenard, Cretan germander (Teucrium Chamaedrys), leaf of Cinnamomum Tamala or albiflorum, roasted copper ore, gentian, anise, hypocist juice, balsam fruit, acacia gum, fennel seed, cardamom, hartwort (Tordylium officinale), acacia, shepherd's purse (Capsella bursapastoris), hypericum, Ferula persica, ajowan (Carum copticum), 4 drachms each, castor, lesser birthwort, Athamanta Cretensis, asphalt from Judea, gum of Opopanax hispidus (Hercules' woundwort), lesser centaury, the resinous juice of all-heal (Ferula galbaniflua), 2 drachms each; honey, 10 litres; Falernian wine as needed. Xenocrates himself also devoted a good deal of effort to such matters and made up the antidote in the same way as Andromachus except that instead of 4 drachms of ferula persica he put 2 in the drug. And Damocrates, who became an excellent doctor himself and one who put together a whole book in verse about the preparation of antidotes, mixes all these same components himself in the composition of the drug, but differs from them in the quantities of the ingredients. For of certain components of which they put 4 drachms each into the drug he puts 2, and again where they put in a weight of 2 drachms, he puts in 1 drachm. Magnus, who became physician to the emperor in our time, observes all the same ingredients as these men in the preparation and differs from them only in the matter of cinnamon; for he puts in twice as much as these others do and similarly with copper ore, and similarly with ferula persica he differs from Andromachus,

τὰς γὰρ δραχμὰς β΄. ὁμοίως τῷ Ξενοκράτει μίγνυσιν εἰς τὸ φάρμακον, τοῦ Ἀνδρομάχου δραχμὰς δ΄. βάλλοντος· κατὰ δὲ τὸ σαγαπηνὸν καὶ τῷ Δαμοκράτει. μίαν μὲν γὰρ δραχμὴν ὁ Δαμοκράτης μίγνυσι τῷ φαρμάκῳ, ὁ δὲ Μάγνος β΄. προστίθησι δὲ καὶ τῷ μιγνυμένῳ οἴνῷ ὁ Μάγνος τὸ μέτρον. δύο γὰρ ξέστας τοῦ βαλλομένου εἶναι βούλεται, τῶν ἄλλων, ὡς εἰκὸς πρὸς τὴν χρείαν, ὁπόσῷ μέτρῷ τοῦ οἴνου χρωμένων [διαφωνεῖ]. 5 Δημήτριος δὲ, καὶ αὐτὸς καθ' ἡμᾶς ἀρχιατρὸς γενόμενος, τῷ μὲν Ἀνδρομάχῳ ὁμοίως

262 κατὰ πάντα τὰ ἄλλα συμφώνως σκευάζει τὸ φάρμακον, μόνη δὲ τῆ τῶν σκιλλητικῶν ἀρτίσκων συσταθμία τῷ Ἀνδρομάχῷ διαφωνεῖ καὶ τοῖς ἄλλοις πᾶσιν. ἐκείνου μη'. δραχμὰς βάλλοντος μέτρον, οὖτος μόνος μστ'. δραχμὰς μόνας μίγνυσι τῆ ἀντιδότῷ. τοσαύτης γὰρ οὖσης τῆς περὶ τὰς γραφὰς διαφορᾶς, ἡμεῖς τῆ τοῦ Ἀνδρομάχου ὡς 10 ἀρίστη χρώμεθα, καὶ εἴς γε τὰς βασιλικὰς χρείας οὕτως σκευάζομεν. γίνεται δὲ καὶ αὐτῆς ἡ σκευασία τὸν τρόπον τοῦτον. καὶ γὰρ εὔχρηστον νομίζω σκευάσαι σοι αὐτὴν τῷ λόγῳ, ἵνα ἤν ποτε καὶ μὴ παρόντος ἰατροῦ εὐφυὴς ῶν σκευάζειν αὐτὴν ἐθέλης, ὡς ἄριστα σκευάσης, διδάσκαλον τῆς σκευασίας ἔχων αὐτὸν τὸν λόγον.

XIII. Πρό δὲ τῆς κατασκευῆς αὐτῆς ἐχρῆν σε καὶ τὴν ἐμβαλλομένου εἰς αὐτὴν ἡδυ- 15 χρόου μάγματος γραφὴν εἰδέναι. ἔστιν οὖν ἡ ἀρίστη σκευασία ἡ παρὰ Μάγνῳ, ῆς ἡ γραφὴ αὕτη. Ἀσπαλάθου ῥίζης φλοιοῦ, καλάμου ἀρωματικοῦ, σχοίνου ἄνθους, φοῦ,
263 κόστου, ἀσάρου, κασσίας, ἀνὰ δραχμὰς στ΄. κινναμώμου δραχμὰς κδ΄. ἀμώμου δρα-χμὰς κδ΄. ἀμαράκου δραχμὰς κ΄. νάρδου Ἰνδικῆς δραχμὰς ιστ΄. μαλαβάθρου φύλλων δραχμὰς στ΄. σμύρνης δραχμὰς κδ΄. μαστίχης δραχμὰς στ΄. κρόκου δραχμὰς ιθ΄. οἶνψ 20 Φαλερίνψ ἀναλάμβανε, ὀποβαλσάμου παραπτόμενος ἐν τῷ ἀναλαμβάνειν, καὶ ψῦχε τοὺς τροχίσκους ἐν σκιậ. ὁμοίως δὲ καὶ τοὺς σκιλλητικοὺς ἀρτίσκους σκεύαζε οὕτως. λαβόντα χρὴ σκίλλαν νεαρὰν καὶ μὴ πάνυ μεγάλην περιπλάττειν, μὴ ὥς τινες πηλῷ, ῥυπαρὸν γὰρ εἶναί μοι δοκεῖ, ἀλλὰ ζύμη, ὀπτάται γὰρ ῥαδίως, τῆ ἀπαλωτάτῃ, ἵνα ἐν τῆ ὀπτήσει καὶ αὐτῆς τι μεταλαμβάνῃ.

<sup>6</sup> Ant. I: XIV 4.11–5.2 22 Ant. I: XIV 49.14–51.7 23 Ant. I: XIV 50.1–51.6 Ant. I: XIV 94.17–95.10 Ant. I: XIV 103.17–104.9

<sup>2</sup> βάλλοντος] add. in marg. Q<sup>2</sup> 5 [διαφωνεî]] L Q<sup>1</sup> del. Q<sup>2</sup> 8 ἐχείνου μη'.] L Q<sup>1</sup> ἐχείνων γὰρ μη' Q<sup>2</sup> 9 βάλλοντος] L, Q<sup>1</sup> βαλλόντων Q<sup>2</sup> || μόνος] L μόνου Q<sup>1</sup> μόνον Y || μόνας] Q<sup>2</sup> μόνη L, Q<sup>1</sup> μόνω N || τῆ] Q<sup>2</sup> τῷ N, Q<sup>1</sup> 10 τοῦ] L om. Crat. Kühn 11 δὲ καὶ] L δὲ Q<sup>1</sup> edd. καὶ Y καὶ post αὐτῆς transp. N 13 ἤν ποτε] Q<sup>2</sup> μή ποτε L μήποτε N Y μή ποτε Q<sup>1</sup> || εὐφυὴς ἂν] L εὐφυὼς ἄν Q<sup>1</sup> 15 κατασκευῆς αὐτῆς ἐχρῆν σε] Q<sup>2</sup> κατασκευῆς καὶ ἔχειν σε L Q<sup>1</sup> 18 κασσίας] correxi ἀσίας codd. edd. masticis Nicc. Arab. 19 μαλαβάθρου φύλλων] Frob. Chart. φύλλα Ald. Crat. L M N Q<sup>1</sup> Y 22 ἀρτίσκους] om. sed add. in marg. Q 24 τῆ ἀπαλωτάτῃ] Q<sup>2</sup> τῷ ἀπαλωτάτῷ L Q<sup>1</sup> 25 αὐτῆς] correxi αὐτοῦ codd. edd. || μεταλαμβάνῃ Κühn μεταλαμβάνει Q<sup>1</sup> μεταλαμβάνοι al.

for he puts 2 drachms in, like Xenocrates, where Andromachus puts 4. And concerning ferula persica he differs from Damocrates, for Damocrates mixes one drachm in the drug, but Magnus 2. And Magnus increases the quantity of wine in the mixture. For he wants two pints to be added, while the others use just as much as is necessary. Demetrius, another leading doctor of our day, makes the drug in all respects as Andromachus does, with the one exception that he differs from Andromachus and the others on the weight of squill pastilles. For they put in 48 drachms, he alone puts 46 in the antidote. There being so much difference over the recipe, we use that of Andromachus, as being the best, and that is how we prepare it for the imperial family. And it is made as follows (for I think it useful to describe its preparation to you so that if ever there is no doctor around, and you, with your natural ability, want to prepare it yourself, you can prepare it as well as possible, with this treatise as your instructor.)

XIII. Before getting on to the preparation itself, you must also know the recipe for the perfume solids which are part of it. The best method of preparation is Magnus', and here is his recipe: camel's thorn (Alhagi maurorum) root bark, aromatic reed, reed flower, wild nard, Saussurea Lappa, hazelwort, balsamwood, cassia, 6 drachms each; cinnamon, 24 drachms; cardamom, 24 drachms; marjoram, 20 drachms; Indian nard, 16 drachms; malabathron (Cinnamomum Tamala or albiflorum) leaves, 6 drachms; myrrh, 24 drachms; mastic, 6 drachms; crocus, 19 drachms; make up with Falernian wine, adding a little balsam juice while making up, and dry the pastilles in the shade. Similarly make up the squill pastilles as follows: take a young squill, not too big, and knead it, not, as some do, with mud, which I think is filthy, but with the softest yeast; for the squill then roasts easily, and takes up some of the yeast.

είτα ὅταν ὀπτήση καλῶς ἐν τῷ καλουμένῷ ἰπνῷ, ἢ ἐν τοῖς κακκάβοις, ἐν οἶς οἱ ἄρτοι όπτωνται [γινομένης της όπτησέως], ἵνα ὁμαλὴ ἡ ὄπτησις γένηται, λαβόντα χρὴ τὰ ένδον αὐτῆς μέρη τὰ ἁπαλώτατα λειοῦν ἐπιμελῶς, μίσγοντα καὶ ὀροβίνου ἀλεύρου καλλίστου καὶ νεαρωτάτου τὸ ἴσον, ὡς ὁ Δαμοκράτης βούλεται. ὁ γὰρ Μάγνος τὸ ήμισυ πέμπων όλίγον μοι μιγνύναι δοκεῖ, καὶ ὁ Ἀνδρόμαχος δὲ δύο πέμπων μέρη 5 πολύ μοι πέμπειν δοκεί. τὸ δ' ἴσον ἐστὶ τὸ πρὸς ἀνάπλασιν σύμμετρον, καὶ οὕτως 264 συλλειώσαντα αὐτῷ τοσοῦτον, ἀναπλάττειν τροχίσκους συμμέτρους χρὴ, καὶ ἐν σκιᾶ

άποτιθεμένους εἰς τὴν χρῆσιν φυλάττειν.

περὶ τῶν εχίδνων

είτα μετά ταῦτα χρὴ λαμβάνειν αὐτὰς τὰς ἐχίδνας πρὸς τὸ πλῆθος τῆς ὅλης σκευ- 10 ασίας αὐτάρκεις, μὴ ἐν παντὶ καιρῷ τεθηραμένας, ἀλλὰ μάλιστα περὶ τὴν ἀρχὴν τοῦ θέρους, ὅταν τῆς μὲν φωλείας παύηται προέρχεται δὲ λοιπὸν ἔξω εἰς τοὺς ὑπαίθρους τόπους, και οὐκέθ' οὕτως ἔχει πονηρὸν τὸν ἰόν. ἔνδον γὰρ φωλεύοντα, και κατὰ μηδὲν διαφορούμενα πονηροτέραν συνάγει και την έν αὐτοῖς φθοροποιὸν δύναμιν, ὅτε καὶ τὸ καλούμενον γήρας συλλέγειν εἴωθε πᾶς ὄφις, ὅπερ ἐστὶν ἐπίπαγός τις παχύτατος, 15 συναγόμενος έν τῷ τῆς φωλείας χρόνῳ, καὶ τῷ χρόνῳ τῆς φωλείας μαλλον ἤπερ τῆς ήλικίας τοῦ ζώου γήρας τυγχάνων. διόπερ χρή μὴ εὐθέως αὐτὰ λαμβάνειν, ἀλλὰ ἐᾶν τινα χρόνον ἀπολαῦσαί τε τοῦ ἀέρος καὶ τραφῆναι τὴν συνήθη νομήν. νέμεται δὲ ταῦτα τὰ θηρία καὶ βοτάνας μέν τινας καὶ ζῶα δὴ τὰ συνήθως αὐτὰ τρέφειν δυνάμενα, ὥσπερ τὰς βουπρήστεις καὶ κανθαρίδας καὶ τὰς καλουμένας πιτυοκάμπας. αὗται γὰρ αὐτῶν 20

265 είσιν αί κατάλληλοι τροφαί. ἔστω δὲ καὶ ὑπόξανθα τὰ ζῶα καὶ εὐκίνητα σφόδρα, καὶ μάλιστα ἐπανατείνοντα τὸν τράχηλον, καὶ τοὺς ὀφθαλμοὺς ὑπερύθρους ἔχοντα, καὶ άναιδεῖς καὶ θηριῶδες βλέποντα, καὶ τὰς κεφαλὰς πλατυτέρας καὶ τὸ πῶν σῶμα, καὶ τὴν γαστέρα προκολπότερον, καὶ τὸν πόρον πρὸς ἄκρα μαλλον τῇ οὐρῷ ἔχοντα, καὶ τὴν οὐρὰν μὴ περιειλημένην, ἀλλὰ μαλλον συστρέφοντα, καὶ ἠρεμαῖον τὸν περίπα- 25 τον ποιούμενα. τούτοις γὰρ τοῦ ἄρρενος ἡ ἔχιδνα διήνεγκε καὶ τῷ πλέονας τῶν δύο κυνοδόντων ἔχειν, ὥσπερ δὴ καὶ Νίκανδρος διὰ τῶν ἐπῶν τούτων λέγει

<sup>10</sup> Ant. I: XIV 45.4–49.13 Ant. I: XIV 103.6–14 18 Aristotle Historia Animalium 594a 4–6 21 Aëtius *Iatricorum* XIII 23.1–23 Pausanias VIII 4 7.1–8.1 27 Nic. *Ther.* 231–232

<sup>1</sup> ὀπτήση] Μ Ν Q<sup>1</sup> ὀπτή [litura] L ὀπτή [ ] Υ || κακκάβοις] L Μ Ν Q<sup>1</sup> Ald. κακάμοις Υ κλιβάνοις ἢ κακάβοις Chart. Kühn κακάβοις Crat. ubi κλιβάνοις imprimitur in marg. 2 [γινομένης τῆς όπτησέως]] L Q<sup>1</sup> del. Q<sup>2</sup> 7 αὐτῷ] Q<sup>2</sup> αὐτὸ L Q<sup>1</sup> 9 :-περὶ τῶν εχίδνων:-] L om. Q<sup>1</sup> 12 θέρους] conieci *spatium unius verbi in* L M N Y Q<sup>1</sup> ἔαρος Q<sup>2</sup>; في أول ربيع (at the beginning of spring) Arab. circa principium veris Nicc. || παύηται] L, Q<sup>1</sup> παύωνται Q<sup>2</sup> || προέρχεται] Q<sup>1</sup> προέρχηται L N Y προέρχονται Q<sup>1</sup> 13 ἔχει] conieci ἔχη L Q<sup>1</sup> ἔχουσι Q<sup>2</sup> 17 τυγχάνων] L τυγχάνων Chart. Kühn || ἐάν] Q² ἐἀν L Q¹ ἐϕ̂ν Chart. Kühn 18 ἀπολαῦσαί τε] ἀπολαύση τὲ L Q¹ ἀπολαύσαι τε Q² || τραφῆναι] Q<sup>2</sup> τραφήν L Q<sup>1</sup> 19 δή] L καὶ Q<sup>1</sup> 20 πιτυοκάμπας] Q<sup>2</sup> πυοκάμπας L Υ (πι)τυοκάμπας (πι sup. lin.) N π(ιτ)υοκάμπας Q<sup>1</sup> (ιτ add. sup. lin.) Q<sup>2</sup> 23 και τό] rasura 3 vel 4 verborum inter και et τό in L **26** τούτοις] Q<sup>2</sup> τούτω Q<sup>1</sup> τούτο -οι sup. lin. L N τούτο Y τούτω edd.

And when you have thoroughly roasted it using what they call an oven, or in the pots they use to bake bread in, so that the cooking is even, you must take the most tender parts of the inside of the squill and carefully pound them small, mixing in also an equal quantity of the finest and freshest bitter vetch flour, as Damocrates stipulates. For Magnus uses half as much flour, and I think makes too little, and Andromachus uses twice the quantity, and I think makes too much. An equal quantity is best for kneading, so pound it up with that quantity and make up equal sized pastilles, put them in the shade and keep them till you need them.

Concerning vipers:

Then you need to take your vipers, enough for the whole batch you are preparing, not caught at any old time but especially around the beginning of summer, when they are ending their hibernation and come out a little into the open air, and no longer have such poisonous venom. For when they are hibernating inside and not going out anywhere, they concentrate the destructive power within them and make it stronger, at the time when every snake is usually forming what they call the slough, which is a very thick outer layer developed in the time of hibernation, and which, although its name is synonymous with "old age", is dependent on the time of the snake's hibernation cycle, not its entire life cycle. So you should not take them immediately, but allow them some time to enjoy the air and be nourished by their usual food. These beasts feed on various plants, and on the animals which usually supply their food such as cow beetles and blister beetles and what they call stinging caterpillars. These are the foods appropriate to them. And let the beasts be yellowish and very agile, and the ones that stretch out their necks most and have reddish eyes and a bold and beastly look, and rather flat heads and bodies, and rather distended bellies, and move from the end of the tail, which should not be twisted but rather tightly coiled, and are quiet in moving about. For the female differs from the male in these respects and in having two more canine teeth; so Nicander in his verse says this:

Τοῦ μὲν ὑπὲρ κυνόδοντε δύο χροῖ τεκμαίρονται, ἰὸν ἐρευγόμενοι, πλεῦνες δέ τοι αἰὲν ἐχίδνης.

καὶ δỳ λαβόντα αὐτὰ τῷ καιρῷ τούτῷ πρῶτον μὲν αὐτῶν χρỳ ἀποκόπτειν τὰς κεφαλάς τε καὶ τὰς οὐρὰς, τοσοῦτον ἀποκόπτοντας, ὡς εἶναι τὸ μέτρον τῆς ἀποκοπῆς τεσσάρων δακτύλων. ἐπιβλέπειν δὲ καὶ ἐν τῷ ἀποκόπτειν τὰ μέρῃ ταῦτα ἀκριβῶς παραινῶ, 5 εἰ μετὰ τὴν ἀποκοπὴν εὐθέως ἀναιμά τε καὶ ἀκίνῃτα καὶ πάντῃ νεκρὰ τὰ ζῶα εἶναι

- 266 φαίνοιτο. εἰ γὰρ τοιαῦτα εὑρίσκοιτο τὰ θηρία, ἄχρηστα αὐτὰ πρὸς τὴν τοῦ φαρμάκου μίξιν εἶναι νόμιζε. εἰ δὲ βλέποις ἐν αὐτοῖς ἀποκοπέντων τῶν μερῶν ὑπολειπομένην κίνησίν τινα καὶ τὸ ἔναιμον ἐπί τινα χρόνον ἀποσώζειν δυνάμενα, ταῦτα ὡς ἄριστα ὄντα, μιγνύναι τῇ σκευασία τῆς ἀντιδότου, οὐ γὰρ ἐξίτηλον, ἀλλ' ἰσχυρὰν πρὸς τὸ 10 σώζειν ἔχοντα δύναμιν φαίνεται. εἶτα μετὰ τοῦτο ἀποδέρειν αὐτῶν ὅλον ἀκριβῶς τὸ δἑρμα, ἐξαίρειν δὲ καὶ τὸ στέαρ ὡς ἄχρηστον καὶ τὰ ἐντόσθια ἅπαντα, ἔστι γὰρ τῶν περιττωμάτων δοχεῖα. καὶ μετὰ τοῦτο ἐμβάλλειν αὐτὰ λοιπὸν εἰς τι κεραμοῦν ἀγγεῖον, ὡς κάλλιστα κατασκευασθὲν, ἢ εἰς λέβητα γεγανωμένον καλῶς, καὶ τοῖς ἀνθραξιν ἀνακεκαυμένοις ἐπικείμενον, ἴνα ἀκνίσως ἡ ἕψησις αὐτῶν γένηται. ἑψήσθωσαν δὲ 15 ἐν ὕδατι πηγαίω καὶ προσεμβαλέσθωσαν ἄλες νεαροὶ, καὶ ἀνήθου μὴ ξηροῦ κλῶνες σύμμετροι. εἶθ' ὅταν ἑψηθῶσιν αἱ σάρκες καλῶς, τὸ μέτρον δὲ τῆς ἑψήσεως ἔστω σοι,
- 267 τοῦ πυρὸς ἀκριβῶς χώριζε τὰς σάρκας τῶν ἀκανθῶν, καὶ λειώσας αὐτὰς, ἄρτου ὡς μάλιστα τοῦ καθαρωτάτου καὶ ἀπὸ σεμιδάλεως τῆς καθαρωτάτης γενομένου μίσγε τὸ 20 σύμμετρον πρὸς τὴν ἀνάπλασιν, ὥσπερ καὶ ὁ Ἀνδρόμαχος βούλεται. ὁ γὰρ Μάγνος, καὶ ὁ Δαμοκράτης καὶ μέτρον τὶ ὡρισμένον αὐτοῖς μίγνυσθαι θέλουσιν· ἴσον γὰρ τοῦ ἀρτου πρὸς ἴσον τῶν σαρκῶν ἀποστήσαντες, οὕτως αὐτὰς συλλειοῦσι τῷ ἄρτῷ· εἶτα παραχέας τὸ αὐταρκες τοῦ ζωμοῦ, οὕτως ἀνάπλασσε συμμέτρους τροχίσκους, παραπτόμενος ἐν τῆ ἀναπλάσει, ὀποβαλσάμου ὀλίγου, καὶ ἐν σκιῷ ἀποτιθέμενος εἰς 25 τὴν τοῦ ὅλου φαρμάκου σκευασίαν φύλαττε.

όταν αί ἄκανθαι χωρισθώσι της σαρκός τών θηρίων, τότε άνελόμενος τὸν λέβητα ἀπὸ

<sup>5</sup> MMG II: XI 143.15–144.2 Ant. I: XIV 45.18–46.1

<sup>2</sup> πλεῦνες] L πλέονες Crat. Kühn || αἰἐν] L ἄρρενος Y 6 εἰθέως ἄναιμά τε] L N εἰθέως ἕναιμά τε Y ἕναιμά τε εἰθέως M Q<sup>1</sup> ἄναιμά τε εἰθέως Q<sup>2</sup> 15 ἀκνίσως] L Q<sup>1</sup> ἀκνίστως (vox nihili) Q<sup>2</sup> edd. 16 μὴ] Q<sup>2</sup> Arab. abest in L 17 δὲ] Q<sup>2</sup> abest in L

Two canine teeth can be seen on the male's skin dripping poison, but the female always has more.

Now when you catch them at this season you must cut off their heads and tails, cutting off the length of four fingers. And I advise you when you cut off these parts to look closely to see if immediately after the cutting off the creatures seem bloodless and motionless and altogether dead. If you find them to be like this, consider them useless for mixing in the drug. But if you were to see in them, after the cutting off of these parts, some residual movement and the ability to preserve the blood in themselves for some time, then I advise you to put these in the mix in preparing the antidote, for they are the best; for they clearly show that they have a power which is not past its prime but still able to save. Next, carefully remove the whole skin, remove the fat which is useless and all the innards which are a reservoir of faecal matter. Then put what is left over in a ceramic pot, prepared as carefully as possible, or into a cauldron, nicely polished, set on burning coals so that they will boil without burning. Boil them in spring water and add fresh salt and an equal quantity of shoots of fresh (not dry) dill. Then, when the flesh is well cooked (your test for this is that the vertebrae come away from the flesh), take the cauldron off the heat and carefully separate the flesh from the spine and grind it fine, and mix it with as much of the purest bread made from the purest wheat flour as is needed in order to mould it, as Andromachus recommends. For Magnus and Damocrates recommend the addition of a defined quantity; they weigh out one part bread to one part flesh, and so grind it up with bread. Then you should pour on enough of the cooking juice and shape into even-sized pastilles, adding a little balsam juice as you shape, and put on one side in the shade until you come to make up the whole drug.

XIV. Καὶ λοιπὸν τῶν ἄλλων ὅσα μὲν κόπτεσθαι καὶ σήθεσθαι χρὴ, κοσκινεύε κοσκίνῳ, ὡς ἔνι μάλιστα λεπτοτρήτῷ γενομένῷ. πάνυ γὰρ τὸ λεῖον πρὸς τὴν ὠφέλειαν εἶναί μοι δοκεῖ χρήσιμον, διὰ τὸ μάλλον εὐπρόσθετον εἶναι τοῖς σώμασιν. ὅσα δὲ διαβρέχειν τε καὶ λειοῦν χρὴ, καὶ ταῦτα λείου καὶ τῷ οἴνῷ βρέχε. ἔστω δὲ ὁ οἶνος κάλλιστος,

- οἶος ὁ Φαλερῖνος γλυκὺς, †οὐ μὴν Φαυστιανὸς, ἀλλ' ὁ δριμύς Καυκῖνος καλούμενος 5 ἀκρος.† εἶθ' οὕτως πάντα λειώσας πρόσβαλε τὸ αὔταρκες μέλι· ἔστω δὲ τὸ αὔταρκες, ὥσπερ αἱ γραφαὶ ἔχουσι, λίτραι δέκα ἀφηψημέναι μετρίως, ὥστε ἐν τῆ ἑψήσει πâν αὐτοῦ τὸ κηρῶδες καὶ πνευματῶδες χωρισθῆναι. ἔστω δὲ καὶ τὸ μέλι τὸ καλούμενον ˁΨμήττιον. τὸν γὰρ θύμον τὸν ἐν αὐτῷ τῷ ὄρει τῷ καλουμένῳ Ύμηττῷ γινόμενον
- νέμονται αἱ μέλισσαι, καὶ οὕτω κάλλιστον ποιοῦσι τὸ μέλι. πειρῶ δὲ καὶ τὴν ῥητίνην 10 τερμινθίνην καὶ τὴν χαλβάνην προαποτήξας ἰδία, οὕτω πρὸς τὴν θυείαν ἐπιβάλλειν τῷ φαρμάκῳ, καὶ λοιπὸν ἑνώσας τὰ πάντα καὶ λειώσας ἐπιμελῶς, πάλιν παραπτόμενος τοῦ ὀποβαλσάμου συμμέτρως, οὕτως ἀποτίθεσο τὴν ἀντίδοτον εἰς ὑάλινα ἢ ἀργυρᾶ σκεύη, μὴ πάνυ πληρῶν αὐτὰ, ἀλλὰ καταλιπών τινα τόπον εἰς διαπνοὴν τῷ φαρμάκῳ,
- καὶ συνεχῶς γε ἀποπωμάτιζε αὐτὰ, ἵνα μᾶλλον διαπνέηται, καὶ ταχυτέρα σοι αὐτῆς ἡ 15 χρῆσις γενήσεται. χρόνου γὰρ εἰς πέψιν οὐκ ὀλίγου χρείαν ἔχει, ἵνα πρὸς τὴν χρῆσιν ἡ ἀντίδοτος πεφθῆ καλῶς. πέσσεται δὲ ὡς ἐπὶ τὸ πλεῖστον τῷ τῶν ιβ΄. ἐτῶν χρόνῳ. 269 οἱ δὲ ἀκμαιοτέρα τε αὐτῆ καὶ ἰσχυροτέρα χρῆσθαι θέλοντες, καὶ ἐτῶν που πέντε καὶ
- έπτὰ τὸν χρόνον ἐχούσῃ, οὕτως ἐχρήσαντο, καὶ μάλιστα ἐπὶ τῶν θηριοδήκτων τε καὶ λυσσοδήκτων καὶ τῶν φαρμάκων τῶν δηλητηρίων. ἰσχυρὰν γὰρ οὗτοι τὴν ἀπὸ τῶν 20 τοιούτων βλάβην ἔχοντες, δυνατωτέραν καὶ τῆς ἀπὸ τοῦ φαρμάκου βοηθείας χρείαν ἔχουσιν. ἔστι δὲ δυνατὸν τὸ φάρμακον ἕως ἐτῶν τριάκοντα. ὡς ἐπί γε τῶν ἄλλων παθῶν, ὅπου μὴ τηλικαύτη ἐστὶν ἡ τοῦ βλάπτειν αἰτία, αὐτάρκης εἶναι δοκεῖ καὶ ἐτῶν ἐξήκοντα χρόνος εἰς τὴν χρῆσιν τοῦ φαρμάκου.

<sup>4</sup> Pliny NH XIV 63.1-5 8 Ant. I: XIV 20.16-23.1 14 Ant. I: XIV 48.13-49.3, 99.4-6

<sup>1</sup> ὅσα μἐν] L ὅσα μὴ Q<sup>1</sup> ὅσα καὶ Q<sup>2</sup> edd. || κοσκινεύε] Q<sup>2</sup> κοσκηνεὑειν (vox nihili) L, Q<sup>1</sup> κοσκινέειν (vox nihili) edd. 5–6 †οὑ μὴν Φαυστιανὸς, ἀλλ' ὁ δριμὑς Καυκῖνος καλοὑμενος ἄκρος.†] conieci ὁ μὴ Φαυστιανὸν, ἀλλ' ὁ δριμὑς τε καὶ πᾶσι [καὶ] καλοὑμενος ἄκτος L M N Y Q<sup>1</sup> (om. καὶ alterum, secl. μὴ ... ἀκτος Q<sup>2</sup>) der wein sei Falerner, süsser, alter, nicht Faustinianer Arab. Sit autem vinum falerinum antiquum Nicc. οὐ correxit Caius 7 ἀφηψημέναι] Q<sup>2</sup> ἀφηψημένον L Q<sup>1</sup> 8 μέλι] Q<sup>2</sup> μέλαν L Q<sup>1</sup> 9 αὐτῷ] L τούτῷ Q<sup>1</sup> αὐτῷ Q<sup>2</sup> 11 τερμινθίνην] Arab. om. al. || καὶ τὴν χαλβάνην] L Q<sup>2</sup> καὶ χαλβάνην edd. 17 τῷ τῶν] Q<sup>2</sup> τούτων L τῷ μὲν Chart. 19 τὸν χρόνον] Q<sup>2</sup> τῶν χρόνων L Q<sup>1</sup> 23 ἐτῶν] Q<sup>1</sup> ὁ τῶν L

XIV. Finally, as for the other things which need cutting and winnowing, sift them in a sieve, the finest available, for everything which is finely textured seems to me to be useful because it is more easily assimilated by the body. As for things which need soaking and pounding, pound them, and soak them in wine. Let the wine be the best, such as sweet Falernian; not Faustian, but the sharp tasting wine called Caucinian, from the summit of the mountain. Then, when you have ground everything fine, add the right quantity of honey: the right quantity should be ten pints, as the recipes say, carefully boiled down so that in the cooking all the waxy stuff and air are driven out. The honey should be the sort called Hymettian; for the bees feed on the thyme which grows on the mountain called Hymettus and therefore make the finest honey. Try to melt the resin and all-heal (Ferula galbaniflua) juice separately and then add them to the drug in the mortar and pound diligently, then add a suitable amount of balsam juice and bottle up the antidote in silver or glass containers, not filling them to the top, but leaving a space for the drug to breathe, and remove the lid frequently so that the antidote can breathe better, and so it will be ready for your use sooner; for it needs a long time to mature until the antidote is well enough aged for use. It will usually be ready after twelve years. But those who wish to use it closer to its peak and stronger use it when it is five or seven years old, especially for bites from reptiles or mad dogs, and for poisoning; for the victims of these suffer powerful damage from these sources, and so they also need stronger help from the drug. The drug is potent for thirty years. But as for other illnesses where the cause of damage is not so great, the drug appears to be useable even at sixty years.

πάνυ γὰρ τὸ πέρας τοῦ τοσούτου διαστήματος ἐξίτηλόν τε καὶ ἄτονον πρὸς τὸ βοηθῆσαι ποιεῖ τὸ φάρμακον. πολλοὶ γοῦν τινες αὐτῆς τὴν δύναμιν κρῖναι θέλοντες πρῶτον διδόντες τὶ τῶν καθαρτικῶν φαρμάκων, εἶτα ἐπιδιδόντες τὶ τῆς ἀντιδότου πιεῖν, οὕτως αὐτῆς ποιοῦνται τὴν κρίσιν. εἰ μὲν γὰρ εὕτονος καὶ ἀκμαία εἴη, οὐδ' ὅλως ἀφίησι τὴν κάθαρσιν γενέσθαι, ἐκνικῶσα τῶ ἑαυτῆς δυνατῶ τοῦ καθαρτικοῦ φαρμάκου τὴν ἰσχύν. 5

270 εἰ δὲ οὕτως καθαρθείη, ὡς μηδὲ τὴν ἀντίδοτον λαβὼν, κατάδηλον γίγνεται ὅτι ἄτονός τε καὶ ἐξίτηλός ἐστιν ἡ ἰσχὺς, ὡς μὴ κρατῆσαι τῆς τοῦ φαρμάκου δυνάμεως. ἔστι δὲ καὶ αὐτῆς καὶ τὸ μέτρον τῆς πόσεως οὐκ ἐπὶ πάντων τὸ αὐτὸ, ὥσπερ οὐδὲ τὸ ὑγρὸν, ῷ διαλύοντες αὐτὴν δίδομεν αὐτὸ, ὥσπερ οὐδὲ τὸ ὑγρὸν, ῷ διαλύοντες αὐτὴν δίδομεν αὐτὸ, ὥσπερ οὐδὲ τὸ ὑγρὸν, ῷ διαλύοντες αὐτὴν δίδομεν. ἐπὶ μὲν γὰρ τῶν προειρημένων Ποντικοῦ καρύου τὸ μέγεθος ἀνέντες μετ' οἴνου κυά- 10 θων τριῶν οὕτως αὐτὴν διδόναι πίνειν τοῖς λαμβάνουσιν εἰώθαμεν. ἐπὶ δὲ τῶν ἀλλων παθῶν καὶ τῷ μέτρῳ καὶ τῷ ὑγρῷ διαφόρως χρώμεθα. πρὸς γὰρ τὴν τῶν παθῶν διαφορὰν ἀρμοζόμενοι καὶ τὴν ποσότητα τοῦ φαρμάκου μετροῦμεν καὶ τὸ κατάλληλον ὑγρὸν τῆς μίξεως κρίνομεν. οὐ γὰρ μόνον πρὸς τὰ τῶν θηρίων δήγματα καὶ τὰ δηλητήρια φάρμακα βοηθεῖν ἡ ἀντίδοτος πέφυκεν, ἀλλὰ καὶ πρὸς τὰ μέγιστα τῶν ἀλλων 15 παθῶν ἀλεξιτήριον φάρμακον ἐκ τῆς ἐν πείρα χρήσεως ὑφ' ἡμῶν οὖσα εὑρέθη.

XV. Γαλήνην γοῦν αὐτὴν ἐν τοῖς προκειμένοις ἔπεσιν ὁ Ἀνδρόμαχος διὰ τοῦτο, οἶμαι, 271 κέκληκεν, ἐπειδὴ ὥσπερ ἔκ τινος τοῦ κατὰ τὰ πάθη χειμῶνος καθάπερ τινὰ γαλήνην τὴν ὑγείαν τοῖς σώμασιν ἐργάζεται. κεφαλαίας γοῦν τὰς χρονίας καὶ τὰ σκοτώματα ἰᾶσθαι πέφυκε καὶ δυσηκοΐας καὶ ἀμβλυωπίας παύειν. ἐνίοτε δὲ καὶ τὸ τῆς γεύσεως 20 ὄργανον ἀσθενοῦν καθίστησι.

<sup>6</sup> κατάδηλον] L κατάδηλος Y edd. 7 μή] L μή δὲ Q<sup>1</sup> μηδὲ edd. 10 ἀνέντες] L Q<sup>1</sup> Ald. ἀνιέντες Crat. Chart. Kühn 14 οὐ] Q<sup>2</sup> ὡς L, Q<sup>1</sup> 16 ἀλεξιτήριον] L ἀλεξητήριον Crat.  $\parallel$  ήμῶν] codd. ὑμῶν edd. Sed "nobis" trans Chart. 19 σκοτώματα] Q<sup>2</sup> σκοτόματα L σκοτομματα Q<sup>1</sup> 20 γεύσεως] L κινεσέως Q<sup>1</sup> corr. Q<sup>2</sup>

Beyond this limit the drug is always past the limit and unable to help. Many wishing to test its efficacy administer first a purgative and then the antidote, and test it that way. For if it is effective and in its prime, it completely prevents purgation from taking place, entirely conquering the power of the purgative drug by its own strength. But if the man is purged completely, as if he had never taken the antidote, it is made clear that its strength is gone and it is useless and so cannot overcome the power of the purgative drug.

The dose of antidote is not the same in all cases and nor is the quantity of liquid in which we dilute it when administering it. For in the cases just mentioned we dissolve a piece the size of a Pontic walnut in three tablespoonfuls of wine and give it to patients to drink in that way. But for other conditions we alter both the dosage and the solvent; for we adapt to the difference between conditions in our measurement of the quantity of the drug and the appropriate solvent. For not only is the antidote of assistance in cases of reptile bites and poisoning, it has also been found by us in practice to be a protective drug in the most serious of the other conditions.

XV. I think Andromachus called theriac "Galene" in the verses set out above because out of the storm caused by illness, it produces the calm, so to speak, of health in the body. For example it cures chronic headaches and vertigo and hardness of hearing and weakness of vision, and sometimes it restores the organ of taste when it is weak. πολλάκις δὲ καὶ τὰς ἐπὶ τῶν φρενιτικῶν παρακοπὰς γενναίως ἔπαυσεν, ὕπνον ἐπιφέρουσα· ἀπ' αὐτοῦ δὲ καὶ τὰς τῆς γνώμης ταραχάς τε καὶ τὰς περιπλοκὰς φαντασίας παύουσα καὶ ταῖς ἐπιληψίαις δὲ αὐταῖς ἀγωνιστικῶς εἴωθε βοηθεῖν, ἀναπίνουσα τὴν πολλὴν ἐκ τῆς κεφαλῆς ὑγρασίαν καὶ ἀνεμπόδιστον ποιοῦσα τὴν ὁδὸν τῷ πνεύ-

- ματι. βοηθεῖ δὲ καὶ τοῖς δυσπνοοῦσιν, ὅταν ἐγκείμενά τινα παχέα φλέγματα εἰς τὰς 5 σήραγγας ἦ τοῦ πνεύμονος, ἀναπνεῖν κωλύοντα τὸν ἄνθρωπον, εὐκόλως τέμνουσα καὶ εὐανάγωγα ποιοῦσα καὶ λεπτύνουσα τὰ συνεστῶτα, καὶ γλίσχρα τῶν ὑγρῶν. καὶ τοὺς αἶμα δὲ ἀνάγοντας πάνυ ὠφελεῖ, εἴ τις αὐτὴν σύμφυτον ἀφεψήσας καὶ ἀνιεὶς τῷ 272 ὕδατι οὕτως ἐπιδώῃ. πολλάκις δὲ καὶ τὰς περὶ τὸν στόμαχον κακώσεις θεραπεύειν
- εἴωθε καὶ ἀνόρεκτον αὐτὸν ὄντα καὶ τὰς τροφὰς λαμβάνειν μὴ δυνάμενον εἰς τὸ προσ- 10 ίεσθαι αὐτὰς ἡδέως κατέστησεν. ἐνίοτε δὲ καὶ τὴν ἐπιτεταμένην ἀλόγως ὄρεξιν ἔκ τινος παρακειμένης αὐτῷ δριμυτέρας καὶ δακνώδους οὐσίας ἀγωνιστικῶς ἔπαυσε, ἢ ἑλμίνθων τοῖς ἐντέροις ἐγκειμένων, καὶ διὰ τοῦτο αὐτοῦ τοῦ στομάχου ἀπλήστως τῆς τροφῆς ὀρεγομένου πνῖγον τὰ θηρία τὸ φάρμακον τῆς πολλῆς πείνης γενναίως
  - ἀπήλλαξεν. ἔτι καὶ τὴν μεγίστην, καὶ πλατεῖαν ἕλμινθα γενομένην καὶ πάσαν τὴν 15 εἰσφερομένην τροφὴν ἐκνεμομένην, καὶ διὰ τοῦτ' ἐκτήκουσαν τὸ ἄλλο πᾶν σῶμα, θαυμασίως ἐξάγει τῶν ἐντέρων. καὶ τὰς ἡπατικὰς δὲ διαθέσεις ἰᾶται πολλάκις, ἐκλύουσα τὰς ἐμφράξεις καὶ τὰς περὶ τὸ ἦπαρ διαθέσεις ἰωμένη. καὶ τὸν ἴκτερον διά τινα παρὰ τὸ ἦπαρ διάθεσιν γιγνόμενον γενναίως θεραπεύει, ἀποκαθαίρουσα τὴν χολὴν καὶ ὥσπερ
- ἀπομάττουσα καὶ ποιοῦσα τὸ ἦπαρ διακρίνειν αὐτὴν καὶ ὥσπερ ἀπομάττουσα καὶ ποι- 20 οῦσα τὸ ἦπαρ διακρίνειν αὐτὴν ἀκριβῶς ἀπὸ τοῦ σώματος. τήκει δὲ ἐνίοτε καὶ τοὺς
  273 σπλῆνας τοῖς ἐσκιρρωμένους, κατ' ὀλίγον ἀναλίσκουσα τὴν ἐν αὐτοῖς ῥυπαρίαν καὶ περιττὴν οὐσίαν. θρύπτει δὲ καὶ τοὺς ἐν νεφροῖς λίθους, καὶ πῶν τὸ γεῶδες ἐν αὐτοῖς καὶ ῥυπαρὸν ἀποκαθαίρει ῥαδίως, καὶ τὰς τῆς κύστεως δυσουρίας παύει, καὶ τὰς ἐν αὐτῆ ἑλκώσεις ἰᾶται πολλάκις, καὶ τὰς περὶ τὴν κοιλίαν δυσπεψίας τε καὶ ἀτονίας 25 θεραπεύει, θερμαίνουσα καὶ τονοῦσα τῆς γαστρὸς τὸ σῶμα, καὶ τῶν ἐντέρων τὰς ἑλκώσεις καὶ τὰς αὐτὰς καὶ τὰς λειεντερίας ἀπαλλάττειν εἴωθε.

<sup>5</sup> Comp. Med. Loc. II: XII 582.18-583.8

<sup>1</sup> φρενιτικών] Chart. Arab. freneticis Nicc. νεφριτικών codd. Ald. Crat. 2–3 ἀπ' αὐτοῦ ... παύουσα] L secl. Q<sup>2</sup>; τοῖς ὕπνοις post παύουσα (codd. edd.) delevi 6 σήραγγας] L σήραγγας Q<sup>1</sup> σύριγγας Q<sup>2</sup>  $\parallel$  ἢ τοῦ πνεύμονος] L ἢ Q<sup>1</sup> del. Q<sup>2</sup>  $\parallel$  κωλύοντα] L κωλύονται Q<sup>2</sup> κωλύωνται Chart. 8 ἀφεψήσας] L ἐφεψήσας Q<sup>2</sup> edd. 13 ἢ] L καὶ Q<sup>1</sup> 13–14 καὶ διὰ τοῦτο ... ὀρεγομένου] καὶ διὰ τοῦτο αὐτὸν ἀπλήστως τῆς τροφῆς ὀρεγομένον L Q<sup>1</sup> 15 ἔτι] Q<sup>2</sup> ὅτε L Q<sup>1</sup> 17 ἡπατικὰς] L add. in marg. καὶ σπληνικὰς post ἡπατος Q<sup>2</sup> 18 ἡπαρ] L; add. in marg. καὶ σπλῆνα post ἡπαρ Q<sup>2</sup> 21 σώματος] Arab. ἤπατος L Q<sup>1</sup> αἴματος Q<sup>2</sup>

And it has often nobly stopped the frenzy of the phrenetic by inducing sleep; and it has caused disturbances of the mind and the entanglements of the imagination to cease by sleep. And it brings heroic relief even to cases of epilepsy, drinking up the large quantity of fluid in the brain and clearing the airways. And it helps those with trouble breathing, when thick phlegm builds up in the hollows of the lungs and prevents a man from breathing, cutting and thinning and rendering removable the build-up of sticky fluid. And it greatly helps those bringing up blood, if boiled up with comfrey and dissolved in water and so administered. And it often cures ills of the stomach and makes the man who has lost his appetite, and cannot take food, turn to it with relish. And sometimes it has heroically put an end to an unreasonably intensified appetite arising from some sharp and biting substance in him, and when worms are infesting his innards and his stomach is therefore insatiably yearning for food, the drug has choked the beasts and given noble relief from his great hunger. It does a wonderful job of expelling from the innards even the very biggest flatworm which eats all the food which reaches the stomach, and therefore causes the whole of the rest of the body to melt away. It often heals ailments of the liver, clearing blockages and healing conditions of the liver. And it nobly cures jaundice arising from a condition related to the liver, clearing away the bile and as it were wiping it away and making the liver neatly clear it from the blood. And it sometimes softens sclerotic spleens, gradually consuming the foulness and excess matter from them. And it breaks down kidney stones and easily clears away the earthy and foul matter in them, and causes the cessation of difficulty in urinating in the bladder, and heals wounds in the bladder and cures dyspepsia and weakness in the guts and warms and strengthens the body of the stomach, and puts a stop to wounds and illnesses of the innards, and the passing of food undigested.

ώφελεῖ δὲ καὶ τοὺς εἰλεωδῶς τὰ ἔντερα διατιθεμένους καὶ τοὺς χρονίως τῆ κωλικῆ διαθέσει περιπεπτωκότας, μάλιστα ὅταν ἀφλέγμαντα ἦ τὰ ἔντερα, ἐξαναλίσκουσα τὰς ἐν αὐτοῖς δριμύτητας τῶν ὑγρῶν καὶ διατμίζουσα τὰς πνευματώσεις τῶν ἐντέρων. ἐνίοτε δὲ καὶ τοῖς χολεριῶσι γενναίως βοηθεῖ, τονοῦσα τὴν σύγκρισιν καὶ ἐπέχουσα τὰ πολλὰ τῶν ῥευμάτων. τὸ μέγιστον δ'αὐτῆς ἔργον πολλάκις ἐπὶ τῶν καρδιακῶν φαίνεται. ῥεο-5

- μένου γὰρ τοῖς πολλοῖς καὶ συνεχέσιν ἱδρῶσι τοῦ σώματος, καὶ τῶν τόνων λελυμένων, μηδὲ τοῦ οἴνου πολλάκις κρατεῖν τοῦ πάθους δυναμένου, ἡ ἀντίδοτος πινομένη καὶ 274 τοὺς ἱδρῶτας ἴστησι καὶ τὴν δύναμιν πίπτουσαν ὥσπερ ανίστησι καὶ ἰσχυρὰν ἀπεργάζεται. ἔστι δὲ ἐπὶ τῶν γυναικῶν καὶ τῶν καταμηνίων αἰμάτων ἀγωγὸς καὶ τὰς ἐν
  - τῆ μήτρα καὶ ἕδρα γιγνομένας αἱμορροΐδας ἐπισχεθείσας πολλάκις ἀναστομοῖ. θαυ- 10 μασίως δὲ καὶ τὰς ἀμέτρους τῶν αἱμάτων ἀποκρίσεις εἴωθεν ἐπέχειν. μέμνησαι γὰρ ὅτι μικτὴν καὶ ποικίλην τὴν δύναμιν αὐτῆς ἐν τοῖς ἔμπροσθεν εἴπομεν καὶ διὰ τοῦτο τὰ μὲν διαχέουσα καὶ λεπτύνουσα ἐκκρίνεσθαι ποιεῖ, τὰ δὲ δι' ἀτονίαν τῆς ἐμφύτου δυνάμεως ἀποκρινόμενα περιττῶς, ταῦτα τονοῦσα τὴν δύναμιν τῶν σωμάτων εἴωθεν
  - ἐπέχειν. καὶ τοὺς ποδαγριῶντας δὲ καὶ τοὺς πάντα τὰ ἄρθρα ἑευματιζομένους ὡφελεῖ 15 μάλιστα τότε, ὅταν ὁ τῆς ἐπιδόσεως καιρὸς παρέλθῃ καὶ ἡ στάσις τῆς ἀκμῆς γένηται. παραμυθούμενον γὰρ τὰ ἀλγήματα τοῖς παρηγορεῖν δυναμένοις ἐπιθέμασι διδόναι πίνειν χρὴ τοῦ φαρμάκου, ἵνα ἐπέχηται τὰ ἑεύματα. ἐξαναλίσκει γὰρ αὐτὰ ἡ ἀντίδοτος τὰ ἤδῃ ἐπενεχθέντα καὶ ἀλλα κωλύει φέρεσθαι. μάλιστα δὲ ὀνίνησιν ὅταν τις αὐτὴν καὶ ὑγιαίνων συνεχῶς λαμβάνῃ, ἐκδαπανᾶται γὰρ τὰ περιττὰ τῶν ὑγρῶν καὶ τὴν ὅλην 20
- 275 άλλοιοῖ σύγκρισιν. τὰ μὲν γὰρ ἄλλα τῶν φαρμάκων, ὅσα εἰς ἀπαλλαγὴν τοῦ νοσήματος οἱ ποδαγριῶντες πίνουσι, τὴν μὲν ἐπὶ τοὺς πόδας τοῦ ῥεύματος φορὰν κωλύει γίγνεσθαι, οὐκ ἐξαναλίσκοντα δὲ τὴν περιττὴν τούτων ὑγρασίαν ἄλλου τινὸς μείζονος νοσήματος γένεσιν ἐργάζεται. πλανωμένου γὰρ ἐν τῷ σώματι τοῦ ῥεύματος ὁ πνεύμων ἀεὶ κινούμενος διὰ τὴν τῆς ἀναπνοῆς ἀνάγκην, καὶ διὰ τὸ μανὸν τοῦ σώματος 25 δέξασθαι τὸ ῥεῦμα ῥαδίως δυνάμενος, τὸ πῶν αὐτὸς ἐφ' ἑαυτὸν ἕλκων, οὕτω πνίγει τὸν ἀνθρωπον, ὅπερ ἱστορικῶς ἐπὶ πολλῶν ἐγὼ τῆ πείρα κατέμαθον, καὶ διὰ τοῦτο ἀποσυμβουλεύω μηδ' ὅλως πίνειν ταῦτα τὰ φάρμακα.τῆ δὲ θηριακῆ ἐν τοῖς τοιούτοις χρῆσθαι καὶ πάνυ παραινῶ· καὶ γὰρ ξηραίνουσα τὰ περιττὰ τῶν ὑγρῶν ὠφελεῖ καὶ ἕτερα συλλέγεσθαι οὐκ ἐậ.

<sup>3</sup> πνευματώσεις] Q<sup>2</sup> Arab. ἔμπτώσεις L Q<sup>1</sup> 5 δ'] Q<sup>2</sup> abest in L 5–6 ῥεομένου] Q<sup>2</sup> ῥαινομένου L ῥαινομένου Q<sup>1</sup> 6 τοῦ σώματος] Q<sup>2</sup> τὸ σῶμα L || τῶν τόνων λελυμένων] L Q<sup>2</sup> τοῖς τόνοις λελυμένον N Y τὸ σῶμα καὶ τῶν τόνων λελυμένον Q<sup>1</sup> 8 πίπτουσαν] Q<sup>2</sup> πίνουσαν L Q<sup>1</sup> || ανίστησι] L ἐξανίστησι Q<sup>2</sup> 18 αὐτὰ] L om. Q<sup>1</sup>

And it helps those with an obstructive disorder of the innards and those ill with chronic colic, especially when there is no inflammation in the innards, clearing away what is sharp in the fluid in them, and causing gases to evaporate. And it often gives noble help to the choleric, strengthening the constitution and keeping in check most of their flux. But its greatest work often appears in the case of heart patients. For when the body is continually sweating in great quantity with its power undone, often when not even wine can master the disease, drinking the antidote stops the sweating and shores up, as it were, the failing strength and fortifies it. And in the case of women it causes the menses to flow and opens up blocked haemorrhoids in the womb and the anus. And it is wonderfully effective in stopping the unrestrained secretion of blood. For remember that we said above that its effect is mixed and complex, and therefore that in some cases it can dissolve and reduce and cause secretions, but in other cases, where there is excessive secretion because of weakness of the natural power of the body, it tones up that power and stems the secretion. And it very much helps the gouty and those with a flux in all their joints, particularly at that time when the time of the disease's increase is past and it stabilises at its peak. For you should reduce the pain with soothing ointments, and give the patient a drink of the drug to stop the flux. For the antidote expels what has already been brought in and prevents other things from entering. And it greatly helps when a healthy man takes it continuously, for it removes excess fluids and alters the whole constitution. For other drugs which the gouty take to cure the disease prevent the flow of liquid to the feet, but by not removing the excess of fluid they cause the onset of another and graver illness. For the fluid wanders about in the body, and the lungs, always in motion because of the need to breathe, and easily able to accept fluid because of their open texture, draw all the fluid into themselves and so stifle their owner. I myself have seen this in the past in many cases, and so I always advise strongly against taking such medicines, and very much recommend the taking of theriac in these circumstances; for it greatly helps in drying out excessive moisture and does not allow more moisture to be collected.

πολλοὶ γοῦν ἐν ἀρχῆ συνεχῶς πίνειν ἀρξάμενοι ἀπηλλάγησαν τελέως τοῦ πάθους, καὶ τούτῷ γε οἶμαι τῷ λόγῷ καὶ τοὺς ὑδεριῶντας πολλάκις μεγάλως ὠφέλησεν, ἐκδαπανῶσα τὸ ἐν αὐτοῖς ὑγρὸν καὶ κατεψυγμένον, τὸ ἔμφυτον θερμὸν ἀναθερμαίνειν δυνα-276 μένη, καὶ μάλιστα τοὺς ἀνασάρκας λευκοφλεγματίας λεγομένους ὕδρωπας γενναίως

- εἴωθεν ώφελεῖν, εἰς ὅλον τὸ σῶμα ἀναδιδομένη καὶ πολλαχόθι ἐκθλίβουσα τῶν σαρκῶν 5 τὴν ὑγρασίαν. διόπερ καὶ τῆς καχεξίας λεγομένης ἄριστόν ἐστι φάρμακον, μετασυγκρίνουσα τὴν ἕξιν τοῦ σώματος, καὶ τὰ μὲν περιττὰ διαφοροῦσα, τὴν δὲ φύσιν ἐνεργεῖν εὐτόνως τὰς φυσικὰς ἐνεργείας παρασκευάζειν δυναμένη. τούτῳ δὲ τῷ τρόπῳ τῆς βοηθείας καὶ τοῖς ἐλεφαντιῶσι πολλάκις ἐπικουρεῖν πέφυκε. πολλοῦ γὰρ ὄντος τοῦ
  - διεφθορότος ρεύματος καὶ σηπούσης τῆς τούτου δυνάμεως τὴν ὅλην σύγκρισιν, ἐκνι- 10 κậν εἴωθεν ἡ ἀντίδοτος τὸ νόσημα, ἐπέχουσα μὲν τοὺς ῥευματισμοὺς, κωλύουσα δὲ καὶ τὴν διαφθορὰν γίγνεσθαι τοῦ αἴματος. τοὺς δὲ τετανικῶς σπωμένους καὶ αὐτοὺς πολλάκις ἐθεράπευσε, θερμαίνουσα τὰ νεῦρα καὶ τὰς τάσεις αὐτῶν χαλῶσα, ὥσπερ δὴ καὶ τὰς παραλύσεις τῶν μερῶν ἐξιωμένη πολλάκις καὶ ἀναζωπυρεῖν ποιοῦσα τὸ πνεῦμα εἰς τὸ κατὰ φύσιν ἤγαγε καὶ τὰς κινήσεις τοῖς μέρεσιν ἐνεργεῖν ἀπέδωκε. θαυ- 15
- κνεσμα εις το κατα φυσιν ηγαγε και τας κινησεις τοις μερεστν ενεργειν απεσωκε. σασ μάζειν δὲ ἔστι τὴν ἀντίδοτον, ὅταν μὴ μόνον αὐτὴν τὸ σῶμα πάσχον θεραπεύουσαν 277 βλέπωμεν, ἀλλὰ καὶ αὐτὴν τὴν ψυχὴν πολλάκις ὑπὸ τῶν παθῶν διατιθεμένην κακῶς ὦφελεῖν δυναμένην. τὰς γοῦν ἐκ τῆς μελαγχολίας γινομένας αὐτῆ κακώσεις παύει διδόμενον συνεχῶς τὸ φάρμακον, ἐκπῖνον ὥσπερ ἐξαναλίσκον ἐκ τῶν ἀγγείων καὶ ἐκ
  - τοῦ σπληνὸς τὴν μέλαιναν χολὴν, καθάπερ καὶ τὸν ἰὸν τῶν θηρίων, διόπερ καὶ πρὸς τὸν 20 πυρετὸν τὸν τεταρταῖον μάλιστα ἀρμόζει καλῶς. ὑπὸ γὰρ τῆς μελαίνης χολῆς γιγνόμενος ὁ πυρετὸς οὗτος εὐκόλως ὑπὸ τῆς ἀντιδότου ἀπαλλάττεται, μάλισθ' ὅταν τὶς αὐτῆ τεχνικῶς ἦ χρώμενος. ἔγωγ' οὗν πολλοὺς τῶν τεταρταιζόντων τῆ ἀγωγῆ ταὑτῃ χρησάμενος ἀπήλλαξα ῥαδίως τοῦ νοσήματος, προκενώσας αὐτοὺς τῷ ἀπὸ δείπνου ἐμέτῳ,
    - εἶτα τῆ ἑξῆς ἐπιδοὺς τὸν χυλὸν τοῦ ἀψινθίου, ἵνα ἐπιγλυκάνω καὶ κατακεράσω τὴν 25 χολὴν, οὕτως πρὸ ὡρῶν δύο τῆς ἐπισημασίας τὴν ἀντίδοτον δίδωμι. καὶ θαυμαστῶς οἶδα πολλάκις ἐπιτυχοῦσαν αὐτὴν, ὡς ταχέως ἀνεπισήμαντον μεῖναι τὸν λαμβάνοντα.

<sup>1</sup> πολλοὶ]  $Q^2$  πολλὰ L  $Q^1 \parallel$  ἀρξάμενοι]  $Q^2$  ἀρξάμενα L  $Q^1$  2 τούτῷ]  $Q^2$  τούτο L  $Q^1$  4 ἀνασάρκας] L καὶ add. in marg. post ἀνασάρκας  $Q^2$  12 καὶ] L om.  $Q^1$  16 τὸ σῶμα] L om. Kühn 19 ἐκπῖνον ὥσπερ] L ὥσπερ ἐκπῖνον καὶ  $Q^2$  21–22 γιγνόμενος] L γενόμενος  $Q^1$  24 τοῦ νοσήματος] M  $Q^1$  om. L N Y

Many who from the beginning have started continuously taking it have completely recovered from the disease, and in this way I think it has also often greatly helped dropsy sufferers, dispersing the fluid and cold in them, having the power to warm up the natural heat; and it has often nobly helped those with what is called anasarcous, white-phlegmed dropsy, being distributed to the whole body and in many places squeezing the moisture out of the flesh. So it is also the best medicine for so-called bad disposition, altering the state of the body and bearing away what is there in excess, but having the power to cause nature to invigorate the strength of the body. And by helping in this way it has often aided sufferers of elephantiasis. For, as there is much corrupted fluid, and as its power is rotting their whole constitution, the antidote tends to overcome the disease, stemming the fluxes and preventing the corruption of the blood. Those convulsed by tetanus it has also often cured, warming the sinews and slackening their tension, as indeed it has often thoroughly cured paralysis of the limbs, and rekindled the breath to its natural state, and restored the power of movement to the limbs. And we can wonder at the antidote when we not only see it healing the suffering body, but also because we often see that it can help the soul itself when it is disordered by disease. For example the drug given continuously stops injuries to the soul arising from melancholy as if it drinks up and discharges black bile from the blood vessels and the spleen, as it does with the venom of animals, for which reason it works especially well against the quartan fever. For this fever being caused by black bile is easily stopped by the antidote especially when used with skill. For example I have easily cured many quartan fever patients of the disease by the use of this remedy, first emptying them with an emetic after supper, then next day giving wormwood juice so as to sweeten and dilute the bile, and so within two hours of the symptoms appearing I administer the antidote. And I know that it often works wonderfully, because the patient quickly becomes and remains symptom-free after taking it.

XVI. Καὶ τὸν ὑδροφόβον δὲ, τὸν κάκιστον τῶν νοσημάτων, τοῦτο τὸ φάρμακον πολ-278 λάκις ἀπαλλάττειν εἴωθε καὶ θαυμασίως ἀνταγωνίζεσθαι τῆ τῶν τοσούτων κακῶν συνδρομῆ. οὐ γὰρ μόνον αὐτοῖς τὸ σῶμα ξηραίνεται καὶ σπώμενον γίνεται ἐνίοτε καὶ πυρετὸν δριμέως ἔνδοθεν καίεται, ἀλλὰ καὶ γνώμῃ παρανοεῖ καὶ τὸ χαλεπώτατον

- αὐτοῖς φέρει σύμπτωμα. τὸ γὰρ ὕδωρ φοβοῦνται καὶ διὰ μὲν τὴν πολλὴν ξηρότητα 5 τοῦ ὑγροῦ ἐπιθυμίαν ἔχουσι καὶ τοῦ πιεῖν ἀπέχονται, διὰ δὲ τὴν παρακοπὴν τὸ ἀφελῆσαι δυνάμενον οὐκ ἐπινοοῦσι. φεύγοντες γὰρ τὸ ὕδωρ καὶ φοβούμενοι τῷ οἰκτίστῳ θανάτῷ ἀποθνήσκουσι κακῶς, ἐφ' ὧν μάλιστα καὶ τοὺς μεθοδικοὺς ἐγὼ τεθαύμακα, ἀχρήστους γὰρ τὰς αἰτίας πρὸς τὰς θεραπείας εἶναι λέγοντες οὐκ οἶδ' ὅπως καὶ θερα-
- πεύειν ποτὲ τούτους δύνανται, ἀπλοῦ τοῦ δήγματος ὄντος καὶ ὁμοίου φαινομένου τῷ 10 ὑπὸ τοῦ μὴ λυσσῶντος κυνός δεδηγμένῳ. τίνα γὰρ καὶ θεραπείας τρόπον αὐτοῖς ἐνδείξεται, ἀπερισκέπτως ὁρώμενον τὸ τραῦμα τοῦ σώματος, μὴ ἐξεταζομένης ὑπ' αὐτῶν τῆς ἔνδον αἰτίας οὔσης καὶ τοῖς μὲν ὀφθαλμοῖς τοῦ μεθοδικοῦ μὴ ὁρωμένης, ὑπὸ δὲ τοῦ 279 λογικοῦ ἰατροῦ μόνω τῷ λογισμῷ καὶ τῆ ἐξετάσει ἀκριβῶς ἐξευρισκομένης; διὸ καὶ ὁ
- μεθοδικῷ θεραπεύοντι κακῶς ἐμπεσὼν ἄθλιος, ὥσπερ ἀλόγῷ τινὶ καὶ αὐτῷ ὄντι θηρίῷ, 15 πάντως τεθνήξεται, ἀκολούθως ἀπολλύμενος αὐτοῦ τῆ αἰρέσει, ἐπεὶ διὰ τὴν ἀκολουθίαν τοῦ δόγματος ὁ μεθοδικος ἐξετάζειν τὴν αἰτίαν οὐ βούλεται. ὁ δὲ εὐτυχῶς τῷ μετὰ λόγου θεραπεύοντι προσελθὼν οὔτε τοῖς οὕτω πονηροῖς συμπτώμασιν ἀλώσεται ῥαδίως καὶ τὸν θάνατον ἐκφεύξεται διὰ τὴν τοῦ λογικοῦ ἰατροῦ τέχνην. παραλαβὼν γὰρ αὐτὸν ὁ τοιοῦτος ἰατρὸς εὐθέως ἀκριβῶς ἐξετάσει ὁποῖός τις ἦν αὐτὸν ὁ κατεδηδο- 20 κὼς κύων. εἰ γὰρ ἀκούσεις ὅτι ἰσχνὸς μὲν καὶ κατάξηρος τῷ σώματι, καὶ τοῖς ὄμμασιν ἐξέρυθρος, καὶ τὴν οὐρὰν παρειμένος καὶ τὸν ἀφρὸν ἐκ τοῦ στόματος ἔχων ῥέοντα, μάθοις δὲ ὅτι καὶ τὴν γλῶτταν ἔξω εἶχε προβεβλημένην καὶ ὥσπερ χολὴν κεχρωσμένην, ἐμπίπτων τε τοῖς ἐντυγχάνουσι καὶ ἀλόγως τρέχων, εἶτα πάλιν αἰφνίδιον ἑστάναι θέλων καὶ δάκνων μετ' ὀργῆς τινος μανικωτέρας ἀπροοράτους αὐτοῦ γενομένους, εἰ 25

ταῦτα ἀκούσεις οὕτως ἔχοντα, εὐθέως μὲν συνήσεις λυττῶντα γεγονέναι τὸν κύνα.

<sup>9</sup> Sect. Int. I 85.15–19; 88.4–89.5

<sup>8</sup> μάλιστα] L μάλιστα ἐγὼ Q<sup>1</sup> || ἐγὼ] L Q<sup>1</sup> del. Q<sup>2</sup> 9 τὰς] L om. Q<sup>1</sup> 11 κυνός δεδηγμένῳ] L δεδηγμένῳ κυνός Q<sup>1</sup> || αὐτοῖς] Q<sup>2</sup> αὐτῷ L Q<sup>1</sup> 17 ὁ μεθοδικος] L om. Q<sup>1</sup> edd. 25 ἀπροοράτους] L ἀπροοράτους, -ως sup. lin. N 26 ἀκούσεις] L ἀκούσης Q<sup>1</sup> edd.

XVI. And this drug often cures hydrophobia, the worst of the diseases, and acts heroically against the dire combination of symptoms it presents. For in hydrophobia, not only does the body dry out, and become shaken, and burn intensely with fever from within, but it also deranges their understanding, and thereby brings them its most dangerous effect. For its victims fear water, and because of their great dryness they have a longing for liquid, and yet they refrain from drinking, and because of their madness they do not realise that it would help them. For, fleeing from water in fear, they die horribly of the most pitiful death. In this context I have often wondered at the methodists; for as they say that explanations are of no value for treatment, I do not see how they can treat these patients, since there is one bite only and it looks the same as the bite of a non-rabid dog. For what sort of treatment does it suggest to them, the thoughtless examination of the physical wound, the inner cause not being examined by them or seen by the eyes of the methodist, but being accurately discovered by the philosophical doctor just by reasoning and enquiry? So the wretch who has the misfortune to end up in the hands of a Methodist doctor, who seems as if he were another unreasoning beast, will die for sure, his destruction following from that choice, because the doctor, following his dogma, is unwilling to seek for a cause. But the lucky patient who goes to a doctor who treats his patients with the aid of reason will not easily be caught by such evil consequences of the bite, and will escape death because of the skill of the reasoning physician. For such a doctor, on taking on his case, will immediately make careful enquiry as to what the dog that bit him was like. If you hear that it was withered and dry in its body, and very red in the eyes, with its tail down and foam running from its mouth, and if you were also to learn that it has its tongue hanging out, and as it were bile-coloured, attacking bystanders and running aimlessly, then suddenly wishing to stand still and biting the unwary with a kind of insane fury; if you hear all this, you will immediately understand that the dog has gone mad.

280 θεραπεύσεις δὲ οὐχ ἀπλῶς οὕτως ὥσπερ ὁ μεθοδικὸς τὸ τραῦμα, ἀλλ' εὐθέως μὲν αὐτὸ καὶ μεῖζον ἐργάσῃ, περιτεμῶν τὴν σάρκα ἐκ πολλοῦ τοῦ διαστήματος καὶ κυκλοτερὲς αὐτοῦ τὸ σχῆμα ποιῶν, ἵνα μὴ ῥαδίως ἐπουλοῦσθαι δύναται, ἀλλ' ἵνα ἔχοι ἀνεῷγότα τὸν πόρον, εἰς πολὺ τοῦ χρόνου τὸ μῆκος τοὐλάχιστον εἰς τὰς τετταράκοντα ἡμέρας, καὶ ἐξέλθοι διὰ τούτου ἰὸς τοῦ κυνός. καυτηρίοις γοῦν εἰώθαμεν πάνυ πεπυρακτωμέ- 5 νοις ἐπικαίειν τὸν τόπον καὶ κεχρῆσθαι τοῖς ἄλλοις φαρμάκοις ὅσα ἐπισπαστικά ἐστι, καὶ ἔνδον τῆς σαρκὸς τὸν ἰὸν μένειν οὐκ ἐαν. ἐγῶ δὲ ἐπινοήσας ποτὲ, καὶ τὴν ἀντίδοτον αὐτὴν ἀνῆκα τῷ ἀπὸ τῶν ῥόδων σκευαζομένῳ ἐλαίῳ, καὶ ὥς τι φάρμακον ἔμμοτον ἐπέθηκα τῷ τραύματι, ἵνα ὥσπερ τις σικύα ἐκμυζήσῃ καὶ ἐκ τοῦ βάθους ἐπισπάσηται τὸ διαφθεῖραι δυνάμενον· καὶ ὅλως καθάπερ τι παιώνειον φάρμακον ἡ θηριακὴ καὶ 10 ἔξωθεν ἐπιτιθεμένη καὶ πινομένη τοῖς λυσσοδήκτοις ἀκριβῶς βοηθεῖ. ἐφάνη δὲ ἡμῖν ἡ ἀντίδοτος αὕτη καὶ ἐν ταῖς λοιμικαῖς καταστάσεσι μόνη τοῖς άλισκομένοις βοηθεῖν

- 281 δυναμένη, μηδενὸς ἄλλου βοηθήματος τῷ μεγέθει τοῦ κακοῦ ἀντιστῆναι οὕτως πεφυκότος. ὥσπερ γάρ τι θηρίον καὶ αὐτὸς ὁ λοιμὸς οὐκ ὀλίγους τινὰς, ἀλλὰ καὶ πόλεις ὅλας ἐπινεμόμενος διαφθείρει κακῶς, τροπῆς τινος μοχθηρᾶς εἰς τὸ διαφθείρειν δύνα- 15 σθαι περὶ τὸν ἀέρα γιγνομένης, καὶ τῶν ἀνθρώπων τῆ τῆς ἀναπνοῆς ἀνάγκῃ τὸ δεινὸν φεύγειν μὴ δυναμένων, ἀλλὰ αὐτὸν εἰς αὑτοὺς ὥσπερ τι δηλητήριον διὰ στόματος ἑλκόντων τὸν ἀέρα. διόπερ ἐπαινῶ καὶ τὸν θαυμασιώτατον Ἱπποκράτην, ὅτι τὸν λοι-μὸν ἐκεῖνον τὸν ἐκ τῆς Aἰθιοπίας εἰς τοὺς Ἐλληνας φθάσαντα οὐκ ἀλλως ἑθεράπευσεν ἀλλ' ἢ τρέψας τὸν ἀέρα καὶ ἀλλοιώσας, ἵνα μηκέτι τοιοῦτος ὢν ἀναπνέηται. κελεύσας 20 οὖν ἀνὰ τὴν πόλιν ὅλην ἐξάπτεσθαι τὸ πῦρ, οὐχ ἀπλῆν τῆς ἀνάψεως τὴν ὕλην ἔχον, ἀλλὰ στεφάνων τε καὶ τῶν ἀνθῶν τὰ εὐωδέστατα, ταῦτα συνεβούλευσεν εἶναι τοῦ πυρὸς τὴν τροφὴν, καὶ ἐπισπένδειν αὐτῷ τῶν μύρων τὰ λιπαρώτατα, καὶ ἡδεῖαν τὴν ἀδμὴν ἔχοντα, ἵν' οὕτω καθαρὸν γενόμενον οἱ ἀνθρωποι ἀναπνεύσωσιν εἰς τὴν ἀπαλ-
- 282 λαγήν τὸν ἀέρα. τὸν αὐτὸν τρόπον νομίζω καὶ τὴν θηριακὴν, ὥσπερ τι καὶ αὐτὴν οὖσαν 25 πῦρ καθάρσιον, τοὺς μὲν προπίνοντας αὐτὴν ἐν τῆ λοιμικῆ καταστάσει μηδ' ὅλως ἐἀν ἀλίσκεσθαι τῷ κακῷ, τοὺς δὲ ἤδη φθάσαντας παθεῖν ἐξιὰσθαι δύνασθαι, ἀλλοιοῦσαν καὶ τρέπουσαν τὴν τοῦ ἀναπνευσθέντος ἀέρος πονηρίαν καὶ μηκέτ' ἐῶσαν διαφθείρειν τὴν σύγκρισιν.

<sup>18</sup> Pliny NH VII 123.6–9, XXVI 202.1–4 Varro Res Rusticae 1.4.5.1–3 Plutarch de Iside et Osiride 383 c–d

<sup>2</sup> έργάση] Q<sup>2</sup> έργάζεται L Q<sup>1</sup> || xαì] Q<sup>2</sup> om. L Q<sup>1</sup> 3 <sup>×</sup>να] L Q<sup>1</sup> om. edd. 5 xαì ἐξέλθοι ... κυνός] Q<sup>2</sup> καὶ ἐξέλκοι διὰ τούτων τον ἰὸν τοῦ κυνός L Q<sup>1</sup> 7 ἑᾶν] conieci ἑậ codd. edd. 9 τις σικύα ] Q<sup>2</sup> τινα σικύαν L Q<sup>1</sup> τἰς σικύα edd. 12 λοιμικαῖς] L λογικαῖς Q<sup>1</sup> 14 ὀλίγους τινὰς] Q<sup>2</sup> ὀλίγας τινὰς L Q<sup>1</sup> || πόλεις] L πόδας Q<sup>1</sup> 15 ἐπινεμόμενος] L ἐπινεμμένης Q<sup>1</sup> 17 εἰς αὐτοὺς] Kühn εἰς ἑαυτὸν L om. Q<sup>1</sup> εἰς ἑαυτὸν vel sim. add. in marg. Q<sup>2</sup> εἰς αὐτοῦ Ald. εἰς αὐτὸς Crat. 22 ταῦτα] L Q<sup>1</sup> τοιαῦτα Q<sup>2</sup> 23 ἐπισπένδειν] Chart. (qui ἐπισπεύδειν scribit sed superfundi transtulit) ἐπισπεύδειν codd. edd. 26 ἐᾶν] Q<sup>2</sup> om. L 28 ἀναπνευσθέντος] Crat. ἀναπλασθέντος L Q<sup>1</sup> (cum obelo), Ald., Crat. qui ἀναπνευσθέντος suppl. in marg.

So you will not simply treat the wound, as the methodist would, but will immediately do a more important thing-cut round the flesh with a wide radius and in a circular shape, so that it cannot easily scar over, but keeps a passage open for a long time, and at least for forty days, and so that the dog's poison can exit this way. And we usually burn the area with irons heated in the fire, and apply other medicines which can be rubbed on, and prevent the poison from staying in the flesh. I once had the idea of dissolving the antidote itself in oil of roses, and put this on the wound as a plaster, so that, like a cupping-instrument, it would suck out and draw up the destructive substance from the depth of the wound. And in general, theriac, like a healing remedy, gives well-targetted help, both when externally applied and when drunk, to those bitten by mad dogs. And this same antidote has also shown itself in plague conditions to be the only one able to help those who drink it, no other form of remedy being constituted in such a way as to resist an evil of such magnitude. For plague, like a kind of wild beast, does not just kill a few, but spreads over entire cities and destroys them horribly; some evil change happens to the air, enabling it to kill, and, because of the necessity of breathing, men cannot escape the evil, but draw the air into themselves like a poison through their mouths. And so I commend the most wonderful Hippocrates, because he treated that plague which spread among the Greeks from Ethiopia just by a change and alteration of air, so as to change the nature of what people were breathing. So he ordered that fires should be lit across the whole city and stipulated that the material burnt consist not simply of wood, but of the sweetest scented garlands and flowers, and that they should pour on it the richest and most sweetly scented myrrh, so that men should experience relief by breathing air that had been made clean in this way. I think that theriac, as if it were itself a cleansing fire, entirely protects from catching the disease those who drink it in advance during a plague epidemic, and has the power to heal those who have already caught it, altering and changing the harmful quality in the air they are breathing, and preventing it from further damaging their constitution.

διόπερ ἐγὼ συμβουλεύω σοι καὶ διὰ ταύτας μὲν τὰς οὕτω γιγνομένας αἰφνιδίους περὶ τὸν ἀέρα καταστάσεις, καὶ διὰ τὰς ἄλλας τῶν βλαπτόντων αἰτίας λαμβάνειν τῆς ἀντιδότου συνεχῶς καὶ ὑγιαίνοντι, ἵνα καὶ τοῖς ἔξωθεν προσπίπτουσιν ἀνθίσταταὶ σοι τὸ σῶμα καὶ ὅταν ἤδη πάθῃ, εὐίατον εὕρῃς. αὕτῃ γὰρ ὡς εὐκρασίαν τινὰ καὶ ὑγιεινὴν κατάστασιν περιποιεῖ τοῖς σώμασιν, ἀναλίσκουσα τὰ περιττώματα τῶν ὑγρῶν καὶ 5

- άναθερμαίνουσα τά κατεψυγμένα τῶν μερῶν, καὶ τὴν ἔμφυτον δύναμιν τονοῦσα πρὸς τὸ τὰς φυσικὰς ἐνεργείας ἐκτελεῖσθαι καλῶς. ὅταν γὰρ ἡ φύσις εὐρώστως ἔχῃ, τότε καὶ ἀνεμποδίστως καὶ ἡ κοιλία πέσσει τὰς τροφὰς, καὶ αἱ φλέβες ἐξαιματοῦσιν αὐτὰς εὐχερῶς, καὶ τὸ ἦπαρ ῥαδίως διακρίνει τὴν χολὴν, καὶ καθαρὸν παραλαβοῦσα ἡ καρ-
- 283 δία τὸ αἶμα, ὅλῷ λοιπὸν, ὡς ἤδη θρέψαι δυνάμενον, ἐπιπέμπει τῷ σώματι, τάς τε 10 ἀποκρίσεις καὶ αὐτὰς ἀποδίδοσθαι συμμέτρως ποιεῖ, καὶ τὰ περιττὰ τῷ σώματι δι' ὅλης τῆς ἀναπνοῆς ὑγιεινῶς διαφορεῖ. μάλιστα δὲ ἐν ταῖς ὁδοιπορίαις συμβουλεύω σοι τῆς ἀντιδότου λαμβάνειν, ὁπότε ψυχροῦ ὄντος τοῦ ἀέρος χειμῶνος ὁδεύης. ἔσται γὰρ ὥσπερ τι τῶν σπλάγχνων ἀγαθὸν ἔνδυμα καὶ πολλὴν τὴν θερμότητα αὐτοῖς παρέ-χειν δυνάμενον. οἶδα δ' αὐτὴν καὶ εἰς τὴν τῆς ψυχῆς σύνεσίν τε καὶ ὀξύτητα μὴ οῦσαν 15 ἀσύμβολον. τάς τε γὰρ αἰσθήσεις ἐνεργεῖν εὐτόνως ἀπεργάζεται καὶ καθαρὸν τῶν ἀναθυμιάσεων ἀποφαίνουσα τὸν νοῦν ἀκριβέστερον αὐτὸν διανοεῖσθαι ποιεῖ. συνελόντι δ' εἰπεῖν, ὅλον δυσπαθὲς εἶναι τὸ σῶμα κατασκευάζει, ὡς μηδὲ ὑπὸ δηλητηρίου τινὸς διαφθείρεσθαι. ἡ γὰρ ποικίλη καὶ τοσαύτη τῆς μίξεως τοῦ φαρμάκου δύναμις τὴν τοιαύτην δυσπάθειαν ἀποτελεῖ, καὶ μάλιστα ἐπεὶ τὸ τῶν θηρίων ἔχει μίγμα. φασὶ γὰρ 20 καὶ τὸν Μιθριδάτην ἐκεῖνον τὸν μέγαν πολεμιστὴν, τὴν μὲν θηριακὴν μὴ λαμβάνοντα, οὐδέπω γὰρ ἦν, ἄλλην δ' ἀντίδοτον λαμβάνοντα πολυμίγματόν τινα, καὶ αὐτὴν τῷ
- 284 ἐκείνου ὀνόματι οὕτω καλουμένην, Μιθριδάτειος γὰρ ὀνομάζεται, διὰ τὴν ἐξ αὐτῆς κατεσκευσμένην τῷ σώματι δυσπάθειαν μὴ δυνηθῆναι λαβόντα τὸ φάρμακον ἀποθανεῖν.

<sup>3</sup> ἀνθίσταταὶ] L ἀνθιστῆταί Kühn 4 εὐίατον] Q² εὐίατον ἢ εὐάρεστον (ἢ εὐάκεστον correxi) L Q¹ del. Q² 8 ἀνεμποδίστως] L ἀνεκποδίστως (vox nihili) Q¹ edd. || καὶ] L om. Crat. Kühn 10 θρέψαι] L τρέψαι Q¹ edd. 16 ἀσύμβολον] Q² ἀσύμβουλον L Q¹ 17 ἀποφαίνουσα] Q² ἀποφαίνουσι L Q¹ || διανοεῖσθαι] L διακεῖσθαι Q¹ edd. 20 δυσπάθειαν] L Q² δύσπνοιαν Q¹ 23 Μιθριδάτειος] Q² Μιθριδάτης L Q¹

And so I advise you, because of these sudden alterations in the air, and the other causes which harm mankind, to take the antidote continuously even in health, so that it will fortify your body against external evils; and if your body is already sick you will find it easy to heal. For the antidote produces good balance and a healthy state in bodies, expelling excess fluids and warming cold parts of the limbs and strengthening innate power so that natural functions are correctly carried out. For when nature is in good strength, the stomach digests its food without hindrance, the veins convert it to blood properly, the liver easily separates out the bile, and the heart receives clean blood and sends it on, as being now good nourishment, to the whole body, and equally causes the secretions to be returned and healthily carries the left-over portion through the whole airway. And I especially advise you to take the antidote on your travels when you make a journey in winter, when the air is cold. For it will be as it were a good garment for your innards, and able to supply them with a good deal of warmth. And I know that it contributes to the intelligence and sharpness of the soul. For it causes the senses to work strongly and makes the mind clear of exhalations and causes it to reason more accurately. To put it briefly, it causes the body to be without ailment so that it is not destroyed by anything harmful. For the power of the drug is varied and so great that it produces such freedom from harm, especially when wild beasts are in the mixture. For they say that the great warrior Mithridates took, not theriac, (which was not yet invented), but another complex antidote named after him (for it was called Mithridatium), and that the immunity it gave him meant he could not die while he was taking the drug.

όπότε γὰρ πολεμῶν πρὸς τοὺς Ῥωμαίους ὑπὸ τοῦ Πομπηΐου νικώμενος καὶ ἐν τοῖς ἐσχάτοις ὢν ὑπὸ τοῦ φαρμάκου τοῦ ἰοῦ ἄνοσος ἀποθανεῖν ἤπείγετο, πιὼν τὸ φάρμακον καὶ πολύ γε αὐτοῦ λαβὼν αὐτὸς μὲν οὐκ ἀπέθνησκε, τὰς δὲ θυγατέρας πάνυ βουληθείσας αὐτῷ διὰ τὴν φιλοστοργίαν συναποθανεῖν πιούσας τὸ αὐτὸ φάρμακον ταχέως ἀποκτανθῆναι, εἶθ' ὡς ἐβράδυνε μὴ ἀποθνήσκων, τοῦ φαρμάκου δι' ῆν προέπινεν ἀντί-5 δοτον μηδὲν ἰσχῦσαι δυναμένου, καλέσας Βίτοιτον τοὔνομα τῶν φίλων αὐτοῦ τινα, ἐκέλευσεν αὐτὸν ἀποσφάξαι, καὶ οὕτω ποιήσας τῷ σιδήρῷ τοῦ φαρμάκου γενέσθαι τὸ ἔργον, ἀποθανεῖν αὐτὸν βιαίως ἡνάγκασεν.

XVII. Όρας οὖν ὅπως τὰ πολυμιγή τῶν φαρμάκων πολλὴν τὴν ἰσχὺν πρὸς τὸ ποιήσαι 285 τὴν δυσπάθειαν ἔχει, καὶ μάλιστα ἡ θηριακὴ, διὰ τὴν τοσαύτην δύναμιν, ὡς ἔφην, τῶν 10 θηρίων. λαμβάνειν δέ σοι τὸ φάρμακον συμβουλεύω, ὅταν εὔπεπτος ἦς καὶ σιτίων μὴ πλήρης, καὶ τῷ μέτρῳ δὲ ἄλλοτε ἄλλως χρώμενος εὖ ποιήσεις. ποτὲ μὲν γὰρ κυάμου τοῦ Αἰγυπτίου τὸ μέγεθος μετὰ κυάθων δύο ὕδατος λάμβανε, ὅταν ὀλίγον ή τὸ μέλλον αὐτῆς πρὸς τὴν πέψιν γίνεσθαι διάστημα ποτὲ δὲ καρύου Ποντικοῦ τὸ μέγεθος πίης, καὶ ἀνιεὶς κυάθοις τρισὶν οὕτως αὐτὸ πῖνε, ὅταν πλείονα πρὸς 15 τὴν διοίκησιν τοῦ φαρμάκου τὸν χρόνον ἔχοις. ἐπίβλεπε δὲ ἄμα καὶ τὴν ὥραν καὶ τὴν χώραν, ἐν αἶς μέλλεις λαμβάνειν τοῦ φαρμάκου. θέρος μὲν γὰρ ὅταν ἦ, οὐδ' όλως αὐτοῦ σοι συμβουλεύω λαμβάνειν. θερμοῦ γὰρ ὄντος τοῦ καταστήματος, ἔτι καὶ μάλλον θερμότερον γιγνόμενον βλάπτεται τὸ σῶμα, καὶ τοῦτό γε συνιδὼν ὁ θαυμασιώτατος Ίπποκράτης τὰς ὑπὸ κύνα καὶ πρὸ κυνὸς φαρμακίας ἐργώδεας εἶναι 20 λέγει. πυρετὸν γὰρ ὡς ἐπὶ τὸ πλεῖστον ὁ καιρὸς οὗτος τοῖς ἀνθρώποις φέρει. διόπερ καὶ τοῖς ἀκμάζουσι τὴν ἡλικίαν καὶ πολλὴν ἔχουσι τὴν φυσικὴν θερμότητα μὴ πολὺ 286 μηδὲ πολλάκις προσφέρεσθαι τὸ φάρμακον παραινῶ· ὥσπερ γε τοῖς ἤδη τοῦ βίου τὴν παρακμήν ἔχουσι καὶ πλεῖστον καὶ μή ὀλιγάκις οὐ μεθ' ὕδατος, ἀλλὰ μετ' οἴνου μαλλον

συμβουλεύω λαμβάνειν, ἵνα τὸ μαραινόμενον ἤδη τοῦ σώματος καὶ τὸ ἀπεσβεσμένον 25 τοῦ ἐμφύτου θερμοῦ ἀναζωπυρεῖν καὶ ἀνάπτεσθαι ὑπ' αὐτοῦ δύνηται.

<sup>20</sup> Hipp. Aph. IV: XVIIb 664.2 Sect. Int. I 89.19-20 Hp. Aph. 4.5

<sup>5</sup> ἀποκτανθήναι] L M Y ἀποκτανήναι N Q<sup>1</sup> edd. 6 Βίτοιτον] correxi Βιοτόκον L M N Y Βιστόκον Q<sup>1</sup> 11 ὅταν εὕπεπτος ἧς] conieci ὅταν εὕπεπτος ἦ L Q<sup>1</sup> Y ὅταν εὕπηπτος ἦ N ὅταν εὕπεπτος εἶ Ald. Crat. ὅτε εὕπεπτος εἶ Kühn 13 μετὰ κυάθων δύο ὕδατος] Q<sup>2</sup> Arab. μετὰ κ' θ' ὕδατι L N μετὰ κ' β' ὕδατι Y 15 πίης] Q<sup>1</sup> ποίης L N Y || ἀνιεὶς] Q<sup>2</sup> ἀνήσους L Q<sup>1</sup> 20 τὰς] Q<sup>2</sup> τὰ L Q<sup>1</sup> || ὑπὸ κύνα καὶ πρὸ κυνὸς] Littré πρὸς κυνὸς καὶ μετὰ κύνα L πρὸ κυνὸς καὶ μετὰ κύνα N in marg. πρὸ (πρὸς Q<sup>1</sup>) κυνὸς καὶ κατὰ κύνα Q<sup>2</sup> edd. || φαρμακίας ἐργώδεας] Q<sup>1</sup> Littré φαρμακία ἐργώδεα L 21 ὁ καιρὸς] L ὁ καιρὸς post πυρετὸν γὰρ habet Q<sup>1</sup>

For when in his war with Rome he was defeated by Pompey, and, in his last moments, being impervious to venom because of the drug, and wanting to die, he took poison; but although he drank a lot of it did not die, though his daughters (who for love of him wanted to die with him) drank the same drug, and it quickly killed them; and then when he was lingering and not dying, the poison having no effect on him because of the antidote he had previously drunk, he called one of his friends, Bituitus, and told him to finish him off with a sword, and so causing the poison's job to pass to the steel he brought about his own violent death.

XVII. So you see how complex drugs have great power to produce immunity to harm, and especially theriac because, as I have said, of the great power of the wild beasts it contains. I advise you to take the drug when your digestion is good and you are not full of food, and taking the appropriate quantity on each occasion, you will do well. Sometimes take a lump the size of an Egyptian bean with two tablespoonfuls of water, when the interval for its digestion is going to be brief. Sometimes take a lump the size of a Pontic walnut and dissolve it in three tablespoonfuls, and so drink it when you have more time for the processing of the drug. Have regard to both the time and the place where you are going to take the drug. For when it is summer I do not advise you to take the drug at all. For the weather is hot and the body is harmed by being made even hotter; knowing this, the most wonderful Hippocrates says that "medicines taken before or under the dog star are difficult". For this season mostly brings fever to men. So I advise that those in the prime of life and full of warmth should not take the drug much, nor often. Those who are past their prime I advise to take it copiously and often, and not with water but rather with wine, so that what is quenched in the body and extinguished in the natural warmth may be rekindled and relit by it.

ἐπὶ δὲ τῶν παιδίων παντάπασι δεῖ φυλάττεσθαι τὸ φάρμακον. μεῖζον γάρ ἐστιν αὐτῶν τῆς δυνάμεως τὸ μέγεθος τοῦ φαρμάκου, καὶ διαλύει ῥαδίως τὸ σῶμα καὶ τὸ ἔμφυτον πνεῦμα ταχέως σβέννυσιν· ὥσπερ δὴ καὶ τὴν λυχνιαίαν φλόγα τὸ ἔλαιον τοῦ πυρὸς πλέον γενόμενον εὐκόλως αὐτὴν ἀποσβέννυσιν. ἐγὼ γοῦν ἱστόρησα διαλυθέν ποτε

- παιδίον ὑπὸ τῆς ἀκαίρου τῆς ἀντιδότου χρήσεως. τὸ μὲν γὰρ ἐπύρεττε χρονίως καὶ 5 ἦν ἰσχνὸν αὐτῷ πάνυ τὸ σῶμα καὶ τὴν δύναμιν ἀσθενὲς, μόλις δὲ καὶ διὰ πολλῆς ἐπιμελείας διαζῆν δυνάμενον, ἅπερ ἐγὼ μὲν συνορῶν ἐκ τοῦ ἰατρικοῦ λογισμοῦ καὶ πάνυ διεκώλυον αὐτῷ δίδοσθαι τοῦ φαρμάκου. κηδόμενος γάρ τις αὐτοῦ καὶ πατὴρ 287 εἶναι δῆθεν λέγων καὶ τυραννικὴν ἐξουσίαν τοῦ κελεύειν ἔχων μάλλον ἤπερ τὴν ἐκ
- τοῦ λόγου συμβουλίαν ἀκούων ἀλόγως καὶ μετὰ πολλῆς ἀνάγκης ἐξηνάγκασέ με 10 τοῦ φαρμάκου διδόναι τῷ παιδίῳ. τὸ δὲ ληφθὲν μὲν οὐκ ἠδυνήθη πεφθῆναι· κρεῖττον γὰρ ἦν τῆς ἰσχύος τοῦ λαμβάνοντος· διέλυσε γὰρ αὐτοῦ τὴν σύμπασαν ἕξιν καὶ τὴν γαστέρα ῥεῖν ἐποίησε, καὶ οὕτω διὰ τὴν ἀλογον τοῦ φαρμάκου χρῆσιν νύκτωρ ἀπώλετο τὸ παιδίον. εἰ δέ ποτε καὶ ἐν θερμοτέρα χώρα διατρίβων εἴης, φυλάττου χρῆσθαι τῷ φαρμάκῳ, ἀρκούσης σοι τῆς ἐκεῖσε τοῦ ἀέρος θερμότητος, διόπερ καὶ τοῖς 15 ἀπο τῆς πρώτης ἀνατολῆς τοῦ ἡλίου ἀνθρώποις θερμοτάτοις οὖσι καὶ πολλὴν ἔχουσι τὴν ἐκεῖθεν ξηρότητα ἀκατάλληλον εἶναι μοι δοκεῖ τὸ φάρμακον.

[τέλος Γαληνοῦ προς Πισώνα τῆς θηριακῆς ἀντιδότου: - τοῦ αὐτοῦ περὶ ἀλῶν]

XVIII. Σκευάζονται δέ τινες διὰ τῶν θηρίων τούτων καὶ ἄλες. ἀναγκαῖον γὰρ ἔδοξέ μοι καὶ τῶν ἁλῶν μνημονεῦσαι, ἵνα τελειότατος ὁ περὶ τούτων σοι λόγος γένηται, ποιοῦσι 20 καὶ αὐτοὶ πρὸς πάντα τὰ προειρημένα, μετρίως μὲν καὶ χρόνῷ πολλῷ τὸ χρήσιμον
288 παρασχεῖν δυνάμενοι, τὸ δὲ συνεχὲς τῆς χρήσεως κατ' ὀλίγον τὴν ὠφέλειαν ποιούμενοι. διόπερ δὴ καὶ πολλοὶ τῶν χρωμένων τὴν συναίσθησιν τῆς ἀπ' αὐτῶν βοηθείας ταχεῖαν οὐκ ἔχοντες τὴν ἀρχὴν οὐδ' ὅλως βοηθεῖν δύνασθαι νομίζουσι, μάλιστα ἐπειδὴ καὶ τῷ πυρὶ σποδὸς αὐτῶν τὸ σῶμα γίγνεται, ἐξαφανίζεσθαι λέγοντες τῆ καύσει τὴν 25 πρὸς τὸ ἐπικουρεῖν δύναμιν αὐτῶν.

**<sup>3</sup>** Ut.Resp. IV: 488.17–489.4 Caus.Morb. VII 9.5–7, 11.14–16 Hipp.Aph. I: XVIIb 413.11–17 Marcellinus de Puls. 404–407 [Alexander Aphrod.]Problemata 1 16.5–7 14 Sect. Int. I 90.7–13

<sup>1</sup> αὐτῶν] L αὐτῆς Q<sup>1</sup> edd. 2 τὸ] Chart.om. L om. sed add. in marg. Y 4 αὐτῆν] L αὐτὸν Q<sup>1</sup> Ald. Crat. om. Chart. Kühn 7 μἐν] L om. Q<sup>1</sup>edd. 10 μετὰ πολλῆς] Q<sup>2</sup> μετὰ πολλοῦ L Q<sup>1</sup> 12 γὰρ] L δέ Q<sup>2</sup> 15 ἐκεῖσε] L ἐκεῖ Q<sup>1</sup> edd. 16 ἀπο] L ὑπὸ Q<sup>1</sup> edd. 18 [τέλος Γαληνοῦ προς Πισώνα τῆς θηριακῆς ἀντιδότου: - τοῦ αὐτοῦ περὶ ἀλῶν]] L ante ras. Abest in N Y τοῦ αὐτοῦ περὶ ἀλῶν M τοῦ αὐτοῦ περὶ ἀλῶν θηριακῶν Q<sup>1</sup> qui θηριακῶν fortasse rasit; Περὶ ἀλῶν Ald.

In the case of children one must avoid the drug entirely. For its inherent power is too strong for them and easily destroys the body and quenches the inborn breath, as when the oil overcomes the fire and puts out the flame in a lamp. I have had experience of a child dying of the untimely use of the antidote. He had chronic fever, and his body was all withered and his vitality low. and he was greatly struggling to stay alive, which I realised from my medical reasoning, and therefore completely prohibited the giving of the drug to him. For the man caring for him claimed to be his father, and having a tyrant's privilege of giving orders, rather than listening to advice given on the basis of reasoning, he irrationally and with great compulsion forced me to give the child the drug. Having taken it he could not digest it, for it had more strength than the one who took it. It undid his whole constitution and gave him diarrhoea and so the child died in the night because of the irrational use of the drug. And if ever you are in a warmer country beware of using the drug, the warmth of the air being enough for you there. And for this reason the drug seems to me unsuited to men who are very hot from the first rising of the sun and have much dryness therefrom.

XVIII. Certain salts are also prepared from these beasts. I thought I should mention these so that this treatise on the subject should be as complete as possible. For they have all the powers mentioned above, having the power to produce useful results moderately and for a long time, but producing benefit little by little if used continuously. For this reason, many of their users, not swiftly perceiving benefit from them to start with, think they are altogether useless, especially because in the fire their body turns to ash, and they say that their power to help vanishes in the burning. έγώ μέν φημι την μὲν δύναμιν αὐτην τῆ θηριακῆ μη ἔχειν τοὺς ἄλας, μη μέντοι τελέως αὐτῶν ἐξαφανίζεσθαι την ἐπίκουρον ἰσχύν. πολλὰ γὰρ τὸ πυρὶ ὁμιλεῖν ἀποφαίνει κρείττονα, καὶ ποτὲ μὲν καὶ κρυπτομένην αὐτῶν την φύσιν εἰς τὸ φανερὸν ἀγει, τινὰ δὲ καὶ πρὸς ῆν βουλόμεθα χρείαν εὐαρμόστως ἔχειν παρασκευάζει. ὁ γοῦν χρυσὸς ὑφ'

- ήμων δι' αὐτοῦ κρίνεται, καὶ ὁ μὲν κίβδηλος πυρωθεὶς ἐλέγχεται, ὁ δὲ ἐν τῷ πυροῦσθαι 5 καθαρθεὶς ἀκριβῶς δόκιμος εἶναι φαίνεται. καὶ ὁ σίδηρος πυρρούμενος μαλάττεται καὶ καμπτόμενος ὑφ' ἡμῶν εὔχρηστος εἶναι πρὸς πολλὰ τῶν ἐν τῷ βίῳ φαίνεται. οὐχὶ δὲ καὶ τῶν προσφερομένων τὰ πλεῖστα πρὸς τὸ τρέψαι ἡμᾶς διὰ τὸ πῦρ κατάλληλα 289 γίγνεται; ἄρτος γέ τοι καὶ τῶν κρεῶν καὶ τῶν ἰχθύων αἱ σάρκες ὡμὰ μὲν ὄντα πρὸς τὴν
- χρείαν τῆς ὀρέξεως ἄχρηστά ἐστιν, ἀπτηθέντα δὲ τότε γίγνονται καὶ τῶν σωμάτων 10 τροφαί. ὁ δὲ οἶνος καὶ αὐτὸς εὐθέως μὲν καὶ ἀπὸ τῶν βοτρύων ἐκθλιβεὶς ὠμὸς καὶ ἄπεπτός ἐστι, πεφθεὶς δὲ τῷ τοῦ ἡλίου πυρὶ τότε καὶ ἥδιστος καὶ ποτιμώτατος γίγνεται. ὅτι δὲ πολλὰ καὶ τῶν ἐν τῆ τέχνῃ φαρμάκων τὴν ἀρχαίαν ἑαυτῶν φύσιν ἔχοντα δριμύτατά τέ ἐστι καὶ πολέμια τοῖς σώμασιν ἡ πεῖρα διδάσκει· κολασθέντα
  - γὰρ τῆ τοῦ πυρὸς ἀνάγκῃ εὔχρηστα πρὸς θεραπείαν γίνεται. ἡ γοῦν χαλκῖτις ὠμὴ 15 μὲν καίει τὰ σώματα καὶ ῥαδίως τὰς ἐσχάρας ἀπεργάζεται, ὀπτηθεῖσα δὲ ἐπουλοῖ τὰ ἕλκη· καὶ ὁ ἀπὸ τῆς Φρυγίας λίθος ὠμὸς μὲν ὢν δριμύτατός ἐστιν, ἀνθρακούμενος δὲ καὶ λειούμενος μετ' ἄλλων τινῶν ἀγαθὸν γίνεται τῶν ὀφθαλμῶν φάρμακον. ἡ δὲ ἀπὸ τοῦ καιομένου σπόγγου γιγνομένη σποδιὰ καρτερῶς τὰς αἰμορραγίας εἴωθεν
- ἐπέχειν. τὸ αὐτό μοι δοκεῖ καὶ ἐπὶ τῶν θηριακῶν ἀλῶν γίγνεσθαι νομίζειν.πάντα 20 γὰρ ὁμοῦ καιόμενα καὶ ὁλόκληρα συναπτόμενα τὰ θηρία τὴν μὲν ἐπιτεταμένην καὶ 290 πονηρὰν τοῖς σώμασι δύναμιν διὰ τῆς καύσεως ἀποτίθεται, ἧς καύσεως ἐσβεσμένης οὕτω τὴν ἀπὸ τοῦ πυρὸς πρὸς τὸ βοηθεῖν συμμετρίαν λαμβάνει. ἰδίως δὲ καὶ οἱ ἄλες θεραπεύουσι μάλιστα τὰ περὶ τὴν ἐπιφάνειαν γιγνόμενα πάθη, λεύκας λέγω καὶ λέπρας καὶ λειχῆνας τοὺς ἀγρίους· τά τε γὰρ ὑπὸ τῷ δέρματι περιττὰ καὶ δριμέα 25 κάλλιστα διαφοροῦσιν.

<sup>15</sup> Comp. Med. Gen. IV: XIII 661.12–16 17 Comp. Med. Loc. IV: XII 727.5–730.4 18 SMT XI: XII 376.1–8

 <sup>7</sup> φαίνεται] Q<sup>1</sup> γίγνεται (φαίνεται sup. lin.) L 8 τρέψαι] L Υ τρέψειν N θρέψειν Q<sup>1</sup> 12 ποτιμώτατος]
 L ποτιμότατος Y 15 γάρ] L δὲ Q<sup>1</sup> 21 ἐπιτεταμένην] conieci ὑποτεταμένην L Q<sup>1</sup> ὑπερτεταμένην Q<sup>2</sup>
 22 ἐσβεσμένης] conieci ἐσφικόμενα L ἦς καύσεως ἐσφικόμενα οὕτω Q<sup>1</sup> del. Q<sup>2</sup> 23 τὴν ἀπό] L τὴν δὲ ἀπὸ Q<sup>2</sup> || καὶ οἱ ἄλες] L Q<sup>1</sup> καὶ ἄλες edd. 26 κάλλιστα] L Q<sup>1</sup> μάλιστα edd.

I however say that although the salts do not have the same power as theriac, their supportive strength does not altogether vanish. For association with fire makes many things stronger, and brings their hidden nature into the open and harmoniously gives some of them the quality we wish to use them for. For example we test gold by fire, and false gold is exposed by it, but that which is purified by the process of burning is revealed to be genuine, and iron heated in the fire is softened and bent to be useful to us for many purposes in life. And is it not the case that most of the things which we take in to feed us, are made suitable for eating by fire? Bread, certainly, and meat and fish are useless for the purpose of the appetite when raw, but when cooked are food for the body. Wine itself, immediately after it is pressed from the grapes, is raw and indigestible, but when cooked by the fire of the sun becomes most delicious and drinkable. And experience teaches that many of the drugs used in the art of medicine are very sharp and hostile to the body while they have their original nature; but disciplined by the compulsion of fire, they become useful for treatment. For example, raw copper ore burns the body and readily produces scars, but after being roasted it heals over wounds. Phrygian stone raw is very piercing, but after roasting and grinding with other ingredients becomes a good drug for the eyes. The ash from burnt sponges is powerful for stemming haemorrhages. I think the same thing happens in the case of theriac salts. For burning the beasts, and setting fire to them whole, removes by burning their over-intense power which damages the body and gains from the fire, once the flames have been extinguished, the power to help. In particular salts treat diseases appearing on the visible surface of the body—I mean various forms of leprosy and wild lichens; for they are very effective at dispersing wastes and pungent substances under the skin.

έσθίοντες γοῦν αὐτοὺς οἱ πλεῖστοι ἱδρωτικώτεροι γίγνονται καὶ τὴν διεφθαρμένην κενοῦσιν οὐσίαν, ὡς καὶ τοὺς καλουμένους φθεῖρας ἐκβάλλειν τινὰς, ἐκ διαφθορᾶς ἰδίαν γένεσιν ἐχούσας, καὶ διὰ τοῦθ', ὡς οἶμαι, φθεῖρας καλουμένας. σμήχουσι δὲ ἄριστα καὶ τοὺς ὀδόντας, καὶ τὰ πλαδαρὰ τῶν σωμάτων πυκνοῦσι, καὶ τὸ ἐπ' αὐτοῖς ἐπιφερόμενον ἀναστέλλουσι ῥεῦμα, ἀσήπτους τε τοὺς ὀδόντας φυλάττουσι, τιτρώσκε-5 σθαι ἢ βιβρώσκεσθαι αὐτοὺς οὐκ ἐῶντες.

XIX. Γίνεται δ' αὐτῶν καὶ ἡ σκευασία τοῦτον τὸν τρόπον. πειράσομαι γάρ σοι πάλιν καὶ τοὑτους σκευάζειν τῆ ὑπογραφῆ τοῦ λόγου χρώμενος. λαβόντα γὰρ χρὴ ἐχίδνας ταῖς 291 προειρημέναις ὁμοίας καὶ τῶ αὐτῶ χρόνω τεθηραμένας, ἔστωσαν δὲ τὸν ἀριθμὸν δ'.

- 291 προειρημεταίς ομοίας και τω αυτώ χροτώ τεσηραμετας, εο τώσαν σε τον αρισμού στ. και μή πολλάς ήμεράς μετά την θήραν έχούσας, άλλ' εί δυνατόν, αὐτῆς τῆς ήμέρας ῆς 10 εἰσιν εἰλημμέναι. εἶτα τῶν άλῶν καλόν μὲν εἰ τῶν ἀμμωνιακῶν, εἰ δὲ μή γε, τῶν κοινῶν καὶ τῆ χρόα λευκῶν καὶ ἐξηθριασμένων ἠρέμα μόδιον Ἰταλικόν, εἶτα καὶ σὺν αὐτοῖς κόψας άδρομερῶς γεντιανῆς Κρητικῆς λλ ας ἀριστολοχίας λλ ας . κενταυρίου λεπτοῦ κόμης λίτρας β΄. καρδαμώμου Ἀρμενιακοῦ, πρασίου, ἀνὰ γο. στ'. [ἐντεριώνης λίτραν α'.] σκορδίου ὀρεινοῦ ἀνύδρου λίτραν α', χαμαίδρυος Κρητικῆς λίτραν α'. πηγάνου 15 ἡμέρου σπέρματος λίτραν α'. μέλιτι Ἀττικῷ ἑνώσας αὐτὰ, καὶ ἥμισυ μέρος αὐτῶν εἰς
  - χύτραν ἐξ ὀστράκου γενομένην καινὴν βαλὼν, εἶτα δ΄. ἐχίδνας ζώσας προεπιβαλὼν, σὺν αὐταῖς καὶ σκίλλας ἁπαλὰς καὶ πάνυ νεαρὰς ε΄. εἰς λεπτὰ κατατεμὼν, οὕτως ἐπίβαλε τὸ λοιπὸν ἥμισυ τῶν ἄλλων μέρος, καὶ πωματίσας καὶ πηλώσας ἐπιμελῶς
- τρήσον τέσσαρσί που τρήμασιν αὐτῆς τὸ πῶμα ἵνα δι' αὐτῶν ὁ ἀτμὸς διασημήνη σοι τὸ 20 292 μέτρον τῆς ὀπτήσεως. τὸ μὲν πρῶτον φανήσεται καπνὸς ἐξιῶν, πολὺς, ζοφώδης καὶ τε θολωμένος πάνυ, σημαίνων ὅτι τὸ πῦρ ἤδη ἅπτεται τῶν θηρίων, ὅτε σε καὶ προσέχειν ἀκριβῶς παραινῶ, μήποτε ἀναπνεύσης τούτου καπνοῦ, κεκακωμένου τοῦ ἀέρος ὑπὸ τῆς ἀναθυμιάσεως τῶν ἐχιδνῶν.

## 8 Paulus Med. 7.11.6

**<sup>3</sup>**–4 ἄριστα καί] L καὶ ἄριστα Q<sup>1</sup> edd. 7 αὐτῶν καὶ ἡ] L αὐτῶν ἡ Q<sup>1</sup> edd. 10 μὴ πολλὰς ἡμερὰς] L, Q<sup>1</sup> μὴ πλεῖον δύο ἡμερῶν Q<sup>2</sup> 13 ἀριστολοχίας] L ἀριστολοχίας στρογγύλης Q<sup>2</sup> 14–15 [ἐντεριώνης λίτραν α΄.]] L del. Q<sup>2</sup> 15 σκορδίου ὀρεινοῦ] L om. Q<sup>1</sup> add. in marg. Q<sup>2</sup> || ἀνύδρου λίτραν α'] L om. Q<sup>1</sup> || χαμαίδρυος Κρητικῆς] L σελίνου χαμαίδρυος Κρητικοῦ Paulus Med. VII 11.6.5 σελίνου χαμαίδρυος Κρητικῆς Chart. Kühn 16 ἥμισυ] conieci ἥμισυ λίτραν Q<sup>2</sup> om. L 17 ὀστράκου] Q<sup>2</sup> ἀστρακίνου L Q<sup>1</sup> || εἶτα] Q<sup>2</sup> μετὰ L Q<sup>1</sup> 18 καὶ] Q<sup>2</sup> 19 τὸ λοιπὸν ἥμισυ] Q<sup>2</sup> τὸ ἄλλο ἥμισυ τοῦ μίγματος Paulus Med. VII 11.6.9 τὸ λοιπὸν τοῦ μοδίου L || ἄλλων] Q<sup>2</sup> ἀλῶν L Q<sup>1</sup> 20 πῶμα] L σῶμα Kühn 21 τὸ μὲν] L add. in marg.γαρ post τὸ μὲν Q<sup>2</sup> 23 τούτου] Q<sup>2</sup> τὸ τοῦ L Q<sup>1</sup>

Most people taking the salts become more sweaty and evacuate corrupted matter and for that reason, I suppose, get rid of what they call lice, which have their origin in corruption, and are called lice (*phtheirai*) from the word for "I corrupt", *phtheiro*. And they are best for cleaning the teeth; they thicken up soft parts of the body of the tooth and remove the plaque which collects round them, and keep them free of rot, not allowing them to be damaged or eroded.

XIX. This is how theriac salts are prepared; again, I will try to give you a written description of how to prepare them. Take some vipers, similar to those described above and caught at the same time of year, thirty in number and not more than two days after they were caught, and if possible on the very day they were taken. Then take one Italian modius measure of salts; salts of ammonia are good, but otherwise common salts of a white colour which have been exposed to the air, and a pint of Cretan gentian coarsely ground, a pint of Aristolochia Rotunda, two pints of fine-leafed centaury, Armenian cardamom and horehound 6 drachms each, mountain garlic, celery, Cretan ground oak one pint, a pint of garden rue seed. Combine with Attic honey and put half the mixture—about a pint—into a new earthenware pot; then also add four live snakes and cut five tender and freshly picked squills into small pieces and add the remaining half of the mixture. Put a lid on and seal with clay and carefully make four holes, so that the steam escaping through them will tell you how the cooking is going. For the first smoke to appear will be opaque and turbid, showing that the beasts are now burning, and I advise you to be very careful not to breathe this smoke, because the air is made foul by the burning of the vipers.

εἶθ' ὅταν παύσηται ὁ ἀτμὸς, ἀναβαλλομένην δέ τινα φλόγα λεπτὴν διὰ τῶν τρημάτων βλέπῃς, τότε νόμιζε ὡς ἄριστα αὐτὰ ὠπτῆσθαι καὶ οὕτω βάσταξας ἀπὸ τοῦ πυρὸς τὴν χύτραν, ψύξας ὅλην ἡμέραν τε καὶ νύκτα, εἶτα ἀνοίξας καὶ ἀνελόμενος τοὺς ἀνθρακας, ἐπιμελῶς κόπτε καὶ σῆθε μετὰ τούτων τῶν μιγμάτων, καὶ πηγάνου ἀγρίου σπέρματος

- γο. θ'. ὑσσώπου Κρητικοῦ γο. θ'. μαράθρου σπέρμα ἀγρίου γο. στ'. νάρδου Κελτικῆς, 5 στάχυος Σκυθικοῦ, ἀνὰ γο. στ'. πετροσελίνου Μακεδονικοῦ γο. δ'. ἀμώμου βότρυος γο. γ'. ὀριγάνου Ἡρακλεωτικοῦ κορύμβων γο. θ'. ὑρμίνου σπέρμα πεφρυγμένου γο. γ'. θύμου κορύμβων Ἀττικοῦ γο. θ'. μαλαβάθρου φύλλα Ἰνδικοῦ γο. δ'. ἀρκευθίδων Λακωνικῶν σαρκὸς λίτρας β'. κορίου σπέρμα ἡμέρου γο. στ'. πεπέρεως λευκοῦ λίτρας
- β'. πεπέρεως μέλανος λίτρας β'. σιλφίου ῥίζης γο. ι'. ζιγγιβέρεως ἀτρήτου λίτρας β'. 10 293 σατυρίου σπέρματος ἢ ῥίζης γο. στ'. γλήχωνος περσίνου γο. στ'. σεσέλεως Μασσαλεωτικοῦ πυρροειδοῦς γο. στ'. τορδύλου ὀρεινοῦ σπέρμα γο. στ'. ἡδυόσμου γο. στ'. κασσίας τῆς καλλίστης γο. β'. κινναμώμου γο. α'. πειρῶ δ' αὐτὰ κόψας, καὶ σήσας, πάλιν ἐπικόπτειν καὶ διακοσκινεύειν πολλάκις, ἵνα ἀκριβῶς λεῖα γένωνται, καὶ οὕτως
  - ἐν ὑελίνοις σκεύεσιν ἀποτιθέμενος χρῆσθαι μὴ εὐθέως, ἀλλὰ μεθ' ἡμέρας που δέκα. 15 ἐσκεύασα δ' αὐτοὺς ἐγὼ, μὴ καύσας τὰ θηρία, ἀλλὰ τοὺς ἐξ αὐτῶν ἀρτίσκους, ὥσπερ ἐπὶ τῆς θηριακῆς ὑπέδειξα σκευάζεσθαι, μίξας τοῖς μετὰ τῶν θηρίων καιομένοις καὶ αὐτοὺς, ἵνα ἥν περ ἔχῃ πικρότητα ἐν αὐτοῖς, ἐν τῇ καύσει ταύτην ἀποβάλῃ, τοσοῦτον μέτρον τῶν ἀρτίσκων προσβάλλων, ὅσον περ ἐτεκμηράμην ἔχειν τὸν ἀριθμὸν τῶν τεσσάρων ἐχιδνῶν, καὶ ἀπέβησαν ὡς ἀληθῶς ἄριστοι, οὕτε τὸ ἐκ τῆς καύσεως σποδῶ- 20
- τεοσαρών εχισνών, και απερήσαν ως αλήσως αριό τοι, σότε το εκ της κασσεώς σποσώ- 20
   δες έν τῆ γεύσει ἔχοντες οὔτε μέλανες ὄντες τὴν χροιἀν, ἀλλὰ καὶ τὴν ποιότητα ἐν τῆ
   χρήσει ἥδιστοι γενόμενοι, καὶ τὴν δύναμιν πρὸς ἅπερ εἶπον αὐτοὺς ἰδίως ποιεῖν, ἐνερ 294 γεστέραν ἔχοντες. οὗτός ἐστιν ὁ περὶ τῆς θηριακῆς καὶ τῶν θηριακῶν ἀλῶν λόγος,
   φιλοπόνως, ὡς οἶμαι, ἐξετασθεὶς ὑπ' ἐμοῦ μάλιστα, ἐπεὶ καὶ σὺ πάντας τοὺς λόγους

 $^{25}$ 

φιλοτίμως ἔχεις.

<sup>2</sup> ἀπτήσθαι] Paulus Med. VII 11.6.18 ἑψήσθαι Q<sup>1</sup> ἑπτήσθαι L ἑψεῖσθαι Ald. ἡψῆσθαι Chart. || βάσταξας] L βάσταζε Q<sup>1</sup> 3 χύτραν] L κύθραν L sup. lin. 4 καὶ] L Q<sup>1</sup> del. Q<sup>2</sup> 5 σπέρμα] L σπέρματος Q<sup>2</sup> || Κελτικής] L Κελτικοῦ Q<sup>1</sup> 7 σπέρμα] L σπέρματος Q<sup>2</sup> 8 φύλλα] L φύλλων Q<sup>2</sup> 9 σπέρμα] L σπέρματος Q<sup>2</sup> 11 σατυρίου σπέρματος ἢ ῥίζης] Q<sup>2</sup> Paulus Med. VII 11.6.27 σατυρίου σπέρμα ῥίζης L Q<sup>1</sup> || περσίνου] L ὀρεινοῦ Q<sup>2</sup> 12 σπέρμα] L σπέρματος Q<sup>2</sup> 13 πειρῶ] L πυρῶ Q<sup>1</sup> 17 μίξας] L Paulus Med. VII 11.6.29 ἀναμίξας Q<sup>2</sup> 17–18 καὶ αὐτοὺς] Q<sup>2</sup> καὶ αὐτοῖς Paulus Med. VII 11.6.30 ὡσαὐτως L 18 πικρότητα] Paulus Med. VII 11.6.30 Chart. ποιότητα al. 21 ἐν] Q<sup>2</sup> om. L N 24 πάντας τοὺς λόγους] L πάντων τῶν λόγων et sup. lin. scribit L περὶ πάντας τοὺς λόγους Q<sup>2</sup>

Then, when the vapour stops, and you see a slender flame emerging through the holes, then regard them as well cooked and take the pot off the heat, cooling it a whole day and night, take out the charred remains and carefully cut them up and sieve them with this mixture: wild rue seed 9 oz., Cretan hyssop 9 oz., wild fennel seed 6 oz., Celtic nard, Scythian base horehound (Stachys germanica) 6 oz. each, Macedonian parsley 4 oz., Nepaul cardamom Amomum subulatum/ grapes 30z., tips of Heracleum oregano 90z., sage, clary (Salvia Horminum) seed, roasted, 30z., tips of Attic thyme 90z., Indian cinnamon leaf 40z., 2 pints of the flesh of Laconian juniper berries, garden coriander seed 6 oz., white pepper 2 pints, black pepper 2 pints, silphium root 10 oz., unperforated ginger 2 pints, man orchid seed or root 6 oz., mountain pennyroyal 6 oz., red Massalian cicely 6 oz., mountain hartwort seed 6 oz., mint 6 oz., best cassia 2 oz., cinnamon 10z. Try to cut them up and sift them and then cut them up again and sieve them many times, so that they become really fine; then put them in glass vessels and do not use them immediately, but after about ten days. I have prepared them, not by burning the beasts, but mixing up pastilles made out of them, prepared as I directed in the case of theriac, with the substances burnt with the beasts [in the recipe above], so that they should lose in the burning whatever bitterness was in them, adding the quantity of pastilles which I estimated to be the equivalent of four snakes; and they came out extremely well, with no taste of ashes from the burning and no blackened exterior, but also in respect of quality they became very pleasant to use, and more efficacious in the cases for which I have specifically recommended them.

This is my treatise on theriac and theriac salts, written after very careful investigation, I think, since you have such a high regard for writings of all kinds.

μέμνημαι γάρ, όπότε τοῖς λόγοις ἐνδόξως ἔτι δημοσιεύων ἐσχόλαζες, ἤ τι λέγων πρόβλημα, χρῆναι τοὺς λέγοντας διαλιπεῖν ποτε, πολλὰς ἀφορμὰς εὑρίσκειν σε φιλοτιμούντων εἰς τόδε διαλεγομένων. ἔλεγες γὰρ ὅτι καὶ οἱ θεοὶ μὴ χρῶντες οὐ λαλοῦσιν. ἐνίοτε δὲ καὶ τὰ χρηστήρια σιωπậ, ποτὲ καὶ ἡ θάλασσα τοῖς χειμῶσι τὸ πλεῖσθαι οὐκ ἔχει. τὰ δὲ ῥεῖθρα τῶν ποταμῶν παύεται ῥέοντα καὶ μετὰ χρόνον ἐπιρρεῖν πάλιν ἄρχε-5 ται καὶ ἡ γῆ τοὺς καρποὺς οὐκ ἀναφύει πάντοτε. μιμησάμενος οὖν σε κἀγὼ οὐδὲν τῶν περὶ τῆς θηριακῆς ζητουμένων παρέλιπον, ἅμα καί σοι προτρεψάμενος ἡδέως χρῆσθαι τῷ φαρμάκῳ, ἐπεὶ καὶ πολυετῆ τῆς ζωῆς τὸν χρόνον ἡ χρῆσις αὐτοῦ παρέχεσθαι τετήρηται, ὅν περ εἰκότως ἐγὼ γενέσθαι σοι παρὰ τῶν θεῶν εὔχομαι.

<sup>1</sup> γάρ] L σε post γάρ add. in marg. Q<sup>2</sup> 2 χρήναι] L, Q<sup>1</sup> κρίναι Q<sup>2</sup> edd. 3 τόδε] Q<sup>2</sup> τὸ σὲ L ∥ λαλοῦσιν] Q<sup>2</sup> καλοῦσιν L, Q<sup>1</sup> 9 γενέσθαι σοι παρὰ τῶν θεῶν εὕχομαι] L παρὰ τῶν θεῶν γενέσθαι σοι εὕχομαι Q<sup>1</sup> γενέσθαι σοι τῶν παρὰ θεῶν Crat. Kühn

For I remember when you were still distinguishing yourself in the public service, whenever you were giving a lecture, or were setting out some problem, you found many opportunities to say that you thought speakers should fall silent from time to time, when your opponents became disputatious. You used to say that even the gods say nothing between prophecies, and sometimes even the oracles are silent, and sometimes because of storms we cannot put to sea. Rivers stop flowing and after a time begin to flow again, and the earth is not always producing crops. Following your example I too have left none of the questions about theriac unanswered, at the same time guiding you towards the use of the drug, since the use of it has been shown to add years to the lifespan and which I pray the gods will bestow upon you.

## Commentary

p. 66) 2 Chartier chapter heading (see Introduction p. 62): Πίσωνι τὸν λόγον ἀνατίθησιν, Ἀνδρόμαχον ἐπαινεῖ, καὶ τῆς γραφθησομένης πραγματείας τὸ αἴτιον ἐκδηλοῖ ὁ Γαληνός.

p. 66) 2 Kal] The opening Kal forms part of a construction Kal ... κal μάλιστα; cf. Lucian Charon 17.1–5 Kal μην οὐδ' εἰπεῖν ἔχοις ἂν κατὰ την ἀξίαν ὅπως ἐστὶ καταγέλαστα, ὡ Χάρων, κal μάλιστα al ἄγαν σπουδal αὐτῶν κal τὸ μεταξὺ τῶν ἐλπίδων οἴχεσθαι ἀναρπάστους γινομένους ὑπὸ τοῦ βελτίστου Θανάτου. Galen Hipp.Epid. XVIIa 962.5–8 Kal περὶ τούτου πολλάκις ἀκηκόατε κal μάλιστα ἐν τοῖς περὶ τῶν ἐκπυϊσκόντων φαρμάκων, ὡς οὐ χρη διαφορητικήν αὐτῶν εἶναι την δύναμιν, ἀλλὰ την ὀνομαζομένην ἐμπλαστικήν. The suggestion of Klass in Pauly (1950) s.v. Piso (5) that "Galen hat dem P[iso] noch eine oder gar mehrere Schriften gewidmet, wie aus dem Anfangsworten des Werkes hervorgeht (Καὶ τοῦτόν σοι τὸν περὶ τῆς θηριακῆς λόγον ... σπουδαίως ἐποίησα [p. 210])", taking Kal to mean "also [in addition to the other treatises I have written for you]" is incorrect.

p. 66) 3 Dedication: see introduction p. 45.

p. 66) 5 καὶ γὰρ καὶ is a distinctively Galenic phrase; TLG shows 150 instances in authors earlier than Galen and 497 in Galen. καὶ γὰρ καὶ ἄλλως is still more distinctively Galenic: TLG shows 15 instances of which six are in Galen (and none earlier), one in Paulus and three in Oribasius: of these four, three are duplicates: a dietary recommendation of  $i\chi\theta \dot{\omega} \nu \delta'$  of πολύποδες (και γάρ και άλλως πεπίστευνται έρεθίζειν) in Orib. Collectiones 6.38.16.1-2 = Orib. Synopsis 1.6.7.2-3 = Paulus Epitomae 1.35.1.16-17. There is of course a possibility that these three passages derive from a lost work of Galen. The fourth is taken from Galen Ut.Diss. II: 889.2-7 Μέγεθος (sc. of the womb) δε ούκ ιση μεν έπι πασῶν· παρὰ πολὺ γὰρ ἐλάττω(ν) μὲν ἡ τῆς (μὴ) κυούσης, μείζων δὲ ἡ τῆς ἐγκύου· καὶ ἥτις δὲ οὐδέποτε ἐκύησε, καὶ ταύτης μείων ἐστίν· καὶ παρὰ τὰς ἡλικίας, αἶς μηδέπω τοῦ λαγνεύεσθαι ὥρα ἢ μηκέτι· καὶ γὰρ καὶ ἄλλως ἐλάττων ἀεὶ ταῖς μὴ λαγνευομέναις. = (with slight variations) Orib. Collectiones 24.29.3.1-4.1. The expression ought to mean something along the lines of "and here is another and different explanatory factor" and seems to have that force in Ut.Diss. II: 889.2-7 (above)—there are great variations in size depending whether the woman is or is not or has in the past been pregnant, and lesser but significant differences depending whether the woman is or is not having sexual intercourse. Here the sense seems to be that Piso's interest in books and philosophers generally explains the multitude of books surrounding him, while his interest in theriac is a more specific explanation for the book he is actually reading. cf.  $\pi$ o $\lambda$  $\dot{\alpha}$   $\mu$  $\dot{\epsilon}\nu$  x $\alpha$  $\dot{\alpha}$  $\lambda\lambda\alpha$  in the preceding sentence.

p. 66) 6 φιλοσόφων] : φιλολόγων is the *lectio difficilior* but see *Praen*. XIV 629.4 and Nutton *ad loc*. where φιλολόγος is used by Galen to characterise his friends at Rome: the reference here is to ancient authorities. Cf. *Praen*. XIV 630.13–14 for ἀνδρῶν qualified by φιλολόγων. Cf. *SMT* II: XI 474.13 for Aristotle and Theophrastus as examples of ἀνδρες φιλόσοφοι. For the locution τοῖς παλαιοῖς τῶν φιλοσόφων cf. Thuc. I 5 2.1–3.1 δηλοῦσι δὲ τῶν τε ἠπειρωτῶν τινὲς ἔτι καὶ νῦν, οἶς κόσμος καλῶς τοῦτο δρᾶν, καὶ οἱ παλαιοὶ τῶν ποιητῶν τὰς πύστεις τῶν καταπλεόντων πανταχοῦ ὁμοίως ἐρωτῶντες εἰ λῃσταί εἰσιν, ὡς οὕτε ὧν πυνθάνονται ἀπαξιούντων τὸ ἔργον, οἶς τε ἐπιμελὲς εἴη εἰδέναι οὐκ ὀνειδιζόντων.

p. 66) 10–11 ἀνδρὸς Μάγνου] The reading ἀνδρὸς Μάγνου is found in L as noted by Jacques (1999 526–527) but before him by the translator or editor of the Latin Giunta edition of 1565 which states in a marginal note that the Greek printed edition reads Ἀνδρομάχου but the "antiquissim[us] cod[ex]", presumably L, reads ἀνδρὸς Μάγνου. The printer's copy Q reads ἀνδρὸς Μάγνου with the words clearly written and well spaced; P reads Ἀνδρομάχου. The Arabic has "a man called Magnus" (رجل سخي مغنس); the editor of the text obscures this fact by emending to Andromachus in the text and German translation on the sole authority of the Greek text in Kühn.

There are two issues here: first which reading is correct and secondly where is the reading in the Aldine derived from? As to the reading there is little to choose, both Magnus and Andromachus having written on theriac, as appears later in the treatise. Neither locution, "somebody called X" or "a certain man called X", is common in Galen or elsewhere. I prefer ἀνδρὸς Μάγνου on the authority of the Arabic, which we know has a source superior to L in at least two places (p. 102. l. 18 and note, p. 126. l. 12 and note), and because, as Jacques points out, the *difficilior lectio* is ἀνδρὸς Μάγνου; a scribe aware of the contents of this treatise or of *Ant*. is likely to think first of Andromachus as a writer on theriac. The Arabic guarantees an early date for the reading ἀνδρὸς Μάγνου because there is no reason for a change to have occurred in the transmission of the Arabic, in which there is no ressemblance between the two readings.

As for the presence of Ἀνδρομάχου in P we do not have enough of P to say very much about it. The Aldine printers have either made the same error independently as P or have tacitly emended the text in accordance with P or one of its relations.

p. 66) 11 πεπαιδευμένου] : ἐντελῶς πεπαιδευμένου is preferred to ἀκριβῶς ἠσκημένου to avoid inelegant repetition at the end of the sentence. ἐντελῶς if correct along with ἐντελῆ παιδείαν ascribed to Antipater p. 72 l. 23 constitute the only occurrence of the stemma ἐντελής in the Galenic corpus.

p. 66) 12 τῷ λόγῳ, τῶν ἐπ' αὐτοῖς λογισμῶν] This is the reading in L and undoubtedly the correct one: τῷ λόγῷ corresponding to τῇ πείρặ and therefore in the singular, τῶν ἐπ' αὐτοῖς λογισμῶν (the reasonings on the subject of τὰ ἔργα) corresponding to τῶν ἔργων and therefore in the plural. LSJ sv ἀσκέω state that the verb takes the accusative of the thing practised, but the dative is found in Galen *Inst. Log.*17.2.6 μαθεῖν ἔνεστιν ἐναργέστερον ἅπασι τοῖς ὁπωσοῦν ἠσκημένοις λόγοις τοιούτοις.

p. 66) 12–13 †τὸ γοῦν ἄρχειν ἡμῶν†] The text is doubtful. The Chartier translation has Itaque praecellere ipsum nostratibus ... illius tempestatis reges ... crediderunt. However ἄρχειν ἡμῶν meaning "to excel the rest of us" is without parallel and ἡμῶν meaning "us doctors", when another age is referred to, is awkward.

p. 66) 13 xat' ἐκεῖνον καιρὸν] Apparently Kühn's emendation (Chartier has κατ'ἐκείν $\omega$  καιρ $\hat{\omega}$ ) and the only grammatically possible reading.

p. 66) 20 ἀνθρώπων] : ἄλλων ἀνθρώπων (O and *edd*.) is not required by the sense.

p. 66) 22–23 ἔνια δὲ καὶ τῶν ἔργων οὕτως ἀκριβῶς ἐπίστασαι καὶ βλέπεις, ὡς οἱ φιλοπόνως μαθόντες ἡμεῖς.] The suggestion that medical skill can be acquired otherwise than by diligent study is fundamentally unGalenic: see further note on following chapter.

p. 68) ו περίναιον: Latin translations by Rota and Andernach (in Froben) imply a reading περίναιον. L has περιτόναιον; the Arabic has صفاق, peritoneum. The reading περίναιον which I have adopted is apparently a conjecture arrived at independently by Andernach and Rota. It is unlikely that Rota follows Andernach, since we know Rota was working from the original Greek from his note on the reading Andromachus in the printed text as opposed to Magnus in the ms. (p. 66 l. 10 above and note). I have adopted it following a suggestion by Vivian Nutton on the basis that it is the *lectio difficilior*, and that the perineum is inherently more likely to become inflamed as a result of riding a horse (especially without stirrups, in the Roman way) than the peritoneum. The emphasis on the fact that Piso's son rides out of necessity rather than by choice suggests that the medical condition to be treated is caused by lack of habituation to the activity.

p. 68) 2 iερουργία] (O Friedlaender) is adopted as much on the authority of Friedlaender's conjecture as on the authority of O, since O offers two patently inadmissible readings in this sentence alone ( $b\pi \delta$ ,  $\chi \omega \rho \epsilon bov \tau \alpha \varsigma$ ) and cannot be regarded as reliable. L and its apographs have iερουργώς: the reading iερουργός in the Aldine and subsequent editions including Kühn appears for the first time in Q<sup>1</sup>. The copious literature predicated on the priesthood of Piso's son (e.g. Ross Taylor (1924)) therefore appears to depend on a copyist's error.  $\delta \eta \mu o$ -τελής means "at the public cost" (LSJ *s.v.*) and almost invariably qualifies a public function such as έορτή, iερά or πανάγυρις—a pattern which iερουργία fits, although iερουργία itself is not qualified by  $\delta \eta \mu o \tau \epsilon \lambda \eta \varsigma$  elsewhere in tlg. There is no evidence that it can apply to a person, with the meaning "publice … praefectus", as translated by Chartier. Nutton argues that this passage refers to the *Lusus Troiae* performed at the Secular Games in 204. For discussion see introduction, "Date".

The Latin of Julius Martius Rota in the Giunta edition (Venice 1565): "Sacris enim certaminibus tunc ipse praeeras" implies a conjecture changing one letter of the Aldine text ην to ης, so as to read ἐπειδή τις καὶ δημοτελης ης μυστηρίων ἱερουργὸς, transferring the putative priesthood from son to father. Rasario (1562) similarly has "ut qui factis administrandis publice praefectus esses". This corruption could have arisen from the loss of ης from δημοτελης ής by haplography and a subsequent erroneous emendation. The proposed reading of ης for ην gives force to the words καὶ αὐτοὺς in ἔδει τινὰ τῶν μυστηρίων καὶ αὐτοὺς ἐπιτελεῖν—not only was the father Piso involved in the ceremony as an ἱερουργός but so too, in another capacity, was his son. I believe the conjecture to be wrong because it depends on the faulty reading ἱερουργὸς, but it deserves mention as an alternative solution to the problem of Piso's son's phantom priesthood.

Rota's departure from the Greek in describing the horse exercise involved leaves little doubt that he believes the Lusus Troiae is being described: "Oportet autem eo tempore, nobiles etiam pueros equis insidentes, atque pro conditione certaminum ad numerum discurrentes, ludum quendam obire."

p. 68) 4 τοὺς ἵππους: L has ὥσπερ τοῖς ἵπποις, apparently giving the sense that the riders are riding rhythmically, ἱππεύοντας εὐρύθμως, and dancing "as if with (by the agency of) the horses." χορεύω with dative means "to dance in honour of" (LSJ s.v.) and in any event to dance by the agency of a horse is an exceptionally clumsy expression. Friedlander's seclusion of ὥσπερ is justifiable on the

assumption that  $\Im \sigma \pi \epsilon \rho$  has been added as an ineffective palliative for the clumsiness. Reading  $\tau \circ \iota \varsigma \ (\pi \pi \circ \iota \varsigma \ (my \ conjecture))$  gives a much more intelligible sentence in which the riders ride rhythmically, the horses themselves dance, and thus even the horses—καὶ αὐτοὺς, which otherwise lacks force—participate in the rite. For horses dancing in the theatre cf. Plutarch *Bruta animalia ratione uti* 992 A11–B4 [πποι δὲ καὶ βόες ἐν θεάτροις κατακλίσεις καὶ χορείας καὶ στάσεις παραβόλους καὶ κινήσεις οὐδ' ἀνθρώποις πάνυ ῥαδίας ἀκριβοῦσιν ἐκδιδασκόμενοι καὶ μνημονεύοντες † εὐμαθείας ἐπίδειξιν ὡς ἄλλο οὐδὲν οὐδαμῶς χρήσιμον ἔχουσιν.

p. 68) 8 ἐπιεικῶς ἐθεραπεύετο] The passage is ambiguous as to whether surgery actually took place; we would expect the imperfect rather than the aorist ἐδεήθη καὶ τομῆς if the point was that an apparent need for surgery was in fact averted as in the version of the anecdote in the following chapter p. 74. l. 7 ff. where the need for surgery is obviated by the emperors' inspired use of a plaster. The relationship between the two passages concerning Piso's son is highly problematic. It seems clear that they do, contrary to the suggestion in Watson (1966) 63 n. 4, refer to the same incident since the introduction of the topic the second time around, τὸ δὲ τοῦ σοῦ παιδὸς γενόμενον κτλ p. 74. l. 7, presupposes that the reader already knows the facts of the incident. The two versions agree that Piso's son rode a horse; that this caused an ἀποστάσις in his body; that Piso was present and was expressing concern about the appropriate type of treatment for his son; that surgery was at least considered as a therapy; and that drugs were applied externally. Neither account absolutely contradicts the other. The express statement of the involvement of the emperors in the second version but not the first is perhaps explicable in the context given the different purposes for which the anecdote is deployed. The two versions do however strongly imply two incompatible versions of the same set of facts. The first version naturally implies that surgery does in fact take place: if the aorist έδεήθη is not intended to imply that surgery actually occurs, the passage is misleading in the absence of an express negativing of the implication. In the second instance the deployment of theriac by the emperors averts the need for surgery. The fact that the author recounts conflicting versions of the story of the incident suggests that the story is a fiction (he is an eye-witness in both versions so he is not dealing with conflicting accounts by third parties; he must know that one version is true and one false), which in turn suggests that the mise-en-scene of the whole treatise may be a fiction. See introduction.

p. 68) 8 φιλοσοφίας] the mss. and editions have τοῦ φιλοσοφίας. we expect either τῆς or no definite article at all; it is more usual in general to find φιλοσοφία

COMMENTARY

without the definite article (LSJ s.ν. φιλοσοφία) and more usual in Galen, e.g. *Praen*. XIV 608.15–16 τοῦ πατρὸς ἐπὶ φιλοσοφίαν ἀγοντός με.

p. 68) 11–12 καὶ παραινεῖν κατὰ τὸν Ἱπποκράτην, μηδὲν εἰκῆ ποιεῖν.] Hp. *Epid.* 6.2.12.1 Μηδὲν εἰκῆ, μηδὲν ὑπερορῶν: "Do nothing without a purpose; overlook nothing". Commentary by Galen *Hipp.Epid.* XVIIa 951.1–953.11 esp. 952.1–3, 953.7–12. Acting εἰκῆ in these passages means unquestioningly (ἀπερισκέπτως, ἀβασανίστως) following the precepts of the doctor's chosen sect without properly considering the symptoms.

p. 68) 14 ἀτόπως is missing from Q but present in Aldine.

p. 68) 17 εἰδεῖν is missing from Q and L but present in Aldine.

p. 68) 19 ἀναμνήσεις εἶναι λέγει] Plato *Meno* 81a–86c, *Phaedo* 73a–77a. The theory applies to matters of geometry (*Meno* 82b–86a) and abstractions such as the Equal, the Beautiful, the Good (*Phaedo* 78d) but not to particular items which are equal or good which are always in a state of flux and are apprehended by the senses rather than the mind (*Phaedo* 78e). The medical expertise exhibited by Piso is plainly of the second kind and therefore outside the scope of Plato's theory.

p. 68) 20 ἐμφαίνεσθαι δὲ αὐτὰς τότε, ὅτε ἡ χρεία καλεῖ.] A misrepresentation of Plato's theory. Plato does not say that the process of learning is superfluous. In both the *Meno* and in Socrates' reference to the *Meno* in the *Phaedo* Socrates has to elicit the requisite information from the slave by asking him the right questions—ἐάν τις καλῶς ἐρωτậ *Phaedo* 73a—the point is that what Socrates does to the slave should be seen as eliciting a memory rather than implanting new information. This is very far from the suggestion here that the information will spring forth unbidden "when necessity requires."

p. 68) 23–24 ἀλλ' ἐσπούδασας αὐτοῦ εἰδέναι τήν τε δύναμιν καὶ τὴν κρᾶσιν, τόν τε καιρὸν καὶ τὸ μέτρον τῆς χρήσεως ἀκριβῶς ἐκμαθεῖν.] Indication, method of preparation, and dosage instructions are a typical Galenic specification of a drug: cf. *Comp. Med. Gen.* II: XIII 441. 9–11 Ἀσκληπιάδης δὲ ὁ ἐπικληθεἰς φαρμακίων δέκα χωρὶς τῶν θηριακῶν καὶ γυναικείων προσθεἰς καὶ αὐτὸς ἑκάστου φαρμάκου τὴν ἐπαγγελίαν, ἐπὶ πολλῶν δὲ καὶ τὴν ἕψησιν, ἐπ' ἐνίων δὲ καὶ τὸν τρόπον τῆς χρήσεως. *Comp. Med. Loc.* VII: XIII 33.3–5 καλῶς ἐποίησε καὶ περὶ αὐτῆς γράψας ὁ Ἀνδρόμαχος τήν τε ἐπαγγελίαν καὶ τὴν σκευασίαν.

p. 68) 25 Chartier chapter heading (see Introduction p. 62): Θηριακής ἔπαινος καὶ διάγνωσις, καὶ τῶν περὶ ταύτην ἀρχόντων Ῥωμαίων σπουδή.

p. 68) 26  $\ddot{\alpha}\pi\tau\alpha$ istor] cf  $\dot{\alpha}\pi\tau\alpha$ istws p. 86. l. 5; outside these two occurrences in *Ther.Pis.* the root occurs only once in Galen *Nat. Fac.* I: II 35.3

p. 68) 26  $\tau \hat{\eta} \zeta \dot{\epsilon} \pi \alpha \gamma \gamma \epsilon \lambda (\alpha \zeta) \dot{\epsilon} \pi \alpha \gamma \gamma \epsilon \lambda (\alpha \kappa)$  is typically used by Galen to mean the effect (claimed or actual) of a complex drug, the range of diseases it is meant to treat or cure. The root meaning of  $\dot{\epsilon}\pi\alpha\gamma\gamma\epsilon\lambda\dot{\alpha}$  and cognates is "claim" and it is capable in Galen of having the pejorative meaning "claimed as opposed to actual state of affairs"; cf. p. 124. l. 9 ff. and n.: πολλοί γάρ αὐτῶν τὴν περί τὸ θηρεύειν τέχνην ἐπιδείκνυσθαι βουλόμενοι, καὶ μάλισθ' ὅσοι καὶ φάρμακά τινα πρός τὰ τοιαῦτα εὑρίσκειν ἐπαγγέλλονται, τὸ μὲν ἔχειν τὰ φάρμακα ψεύδονται. Ιt can also be used in a non-pejorative sense: cf. Ant. I: XIV 1.8-2.1 [some drugs confer immunity from ingested poison, some from the venom of wild beasts, some from the effects of defective lifestyle and ]  $\xi$  vial  $\delta \xi$  tag track  $\xi$  and  $\gamma \xi$  and  $\gamma \xi$ χρείας, ὥσπερ καὶ ἡ θηριακὴ καλουμένη. ἐπαγγελία can also mean the objective effect of a drug, independent of any claims made for it: Comp. Med. Gen. III: XIII 641 where Galen conducts an experimental comparison of two drugs: ἐνενόουν άφελών τὰ πλείω καὶ δι' ὀλίγων ἄλλο συνθεὶς αὖθις ἐπισκέψασθαί τε καὶ βασανίσαι διὰ τῆς πείρας, εἴτε πολλῷ τινι τοῦ πολυμιγμάτου φαίνοιτο λειπόμενον εἴτε ὀλίγῳ. περὶ παντὸς οὖν ἐποιησάμην καὶ τοῦ παρὰ τοῦ καθ' ἡμᾶς ἰατροῦ λαβεῖν τὴν γραφὴν καὶ παραχρῆμα σκευάσας παραπλήσιον ἔχον εὗρον ἐπαγγελίαν τε καὶ δύναμιν αὐτὸ τῷ ποιχίλῳ. Galen here discovers the ἐπαγγελία of the second drug by preparing it (σκευάσας).  $\dot{\epsilon}$ παγγελία therefore here is an objective quality of the drug and means something close to δύναμις. The efficacy claimed for theriac here is in line with Ant. I: XIV 1-3

p. 70) 4 Testing of theriac: for rulers testing on criminals cf. Ant. I: XIV 2.3–9 ó yáp toi Miθριδάτης οὗτος, ὥσπερ καὶ ὁ καθ' ἡμᾶς Ἄτταλος, ἔσπευσεν ἐμπειρίαν ἔχειν ἀπάντων σχεδὸν τῶν ἁπλῶν φαρμάκων, ὅσα τοῖς ὀλεθρίοις ἀντιτέτακται, πειράζων αὐτῶν τὰς δυνάμεις ἐπὶ πονηρῶν ἀνθρώπων, ὧν θάνατος κατέγνωστο. τινὰ μὲν οὖν αὐτῶν ἀνεῦρεν ἐπὶ φαλαγγίων ἰδίως ἁρμόζοντα, τινὰ δὲ ἐπὶ σκορπίων, ὥσπερ ἐπὶ τῶν ἐχιδνῶν ἀλλα. καὶ ἐπὶ τῶν ἀναιρούντων φαρμάκων τὰ μὲν ἐπὶ ἀκονίτου, τὰ δὲ ἐπὶ λαγωοῦ τοῦ θαλαττίου, τὰ δ' ἐπ' ἄλλου τινὸς ἢ ἄλλου. πάντα δ' οὖν αὐτὰ μίξας ὁ Miθριδάτης ἕν ἐποίησε φάρμακον, ἐλπίσας ἕξειν ἀρωγὸν ἐπὶ πᾶσι τοῖς ὀλεθρίοις. There is clearly a close parallel between the two passages but also a significant difference in that in Ant. Mithridates (and possibly also Attalus, depending on the scope of ὥσπερ in line 4) tests simple drugs to discover their effects in order to invent a new complex drug while the unnamed rulers of *Ther.Pis*.

are testing to verify whether an existing complex drug performs in accordance with its  $\dot{\epsilon}\pi\alpha\gamma\gamma\epsilon\lambda\dot{\alpha}$ . The author then presents the test on wild fowl as a parallel to the experiment conducted by the rulers, and this test is clearly also a test or demonstration of the fact that theriac lives up to its  $\dot{\epsilon}\pi\alpha\gamma\gamma\epsilon\lambda\dot{\alpha}$ . It is not a test of a particular batch of theriac, because the author says that  $\ddot{o}\sigma\alpha$   $\delta\dot{\epsilon}$   $\pi\dot{\epsilon}\pi\omega\kappa\epsilon\nu$ [sc. theriac]  $\dot{i}\sigma\chi\dot{\upsilon}\epsilon_{1}\kappa\alpha\dot{\iota}$  µ $\epsilon\tau\dot{\alpha}$   $\tau\dot{\delta}$   $\delta\eta\gamma\mu\alpha$   $\tau\dot{\eta}\nu$   $\zeta\omega\dot{\eta}\nu$   $\check{\epsilon}\chi\epsilon\iota$  rather than saying that if they survive, it shows that the batch is a good one. The author does however then turn to the separate issue of testing for adulteration (p. 70. l. 13 ff. and n.); the issue of batch testing (this time for deterioration through aging) arises again later in the piece at p. 138. l. 2 ff. and note 1.

For testing on criminals condemned to death cf. Ant. I: XIV 2.3–9 (previous note). A parallel allegation of experimentation on living prisoners by Herophilus and Erasistratus by permission of the ruler is made in the context of anatomical dissection by Celsus *de Medicina* 1 23.3–24.1. Galen himself is silent on this allegation despite frequent references to Erasistratus' anatomy in *AA* I: II 216.16–217.2 where he says he has written a book on Erasistratus and another on "dissection both of the living and dead": ἐπιδημοῦντος μὲν γὰρ ἔτι τῆ Ῥωμαίων πόλει τοῦ Βοηθοῦ, τά τε περὶ τῆς Ἱπποκράτους ἀνατομῆς, τὰ περὶ τῆς Ἐρασιστράτου, καὶ μέντοι καὶ τὰ περὶ τῆς ἐπὶ τῶν ζώντων, ἔτι τε τὰ περὶ τῆς ἐπὶ τῶν τεθνεώτων ἐγράφη.

p. 70) 6 The marginal note Π $\hat{\omega}$ ς δοχιμαστέον τὴν θηριαχήν vel sim. appears in all three Greek branches of the tradition (L, P, O) and is therefore clearly of some antiquity.

p. 70) 7 τὸ αὐτὸ δρῶντες] τοῦτο in P is apparently an emendation made necessary by the omission of the first part of this sentence to which τὸ αὐτὸ refers.

p. 70) 8 ἀλεκτρυόνας γὰρ λαβόντες] A puzzling sentence. οἰκοδίαιτοί is a hapax but its sense is clear. ὁμότροφοι (sharing our food) might be preferred to the alternatives ὁμορόφοι etc. (living under the same roof as us) first because it is used by Herodotus 2.66 to denote domestic animals, secondly because the diet of the birds seems more relevant than their living quarters, thirdly because ὁμορόφοι *vel sim.* merely reduplicates the sense of οἰκοδίαιτοί. On the other hand ὁμορόφιοι is the reading in L and is marginally the *lectio difficilior* and οἰκοδίαιτοί (a hapax) might have the sense "fed at home" rather than "living at home" in which case the duplication argument works against ὁμότροφοι. The Arabic text has "die Auslauf hatten weil ihr Körper trockener und magerer ist als der im Stall gefangener" to convey the meaning of the negative of both adjectives. Note that Pliny the Elder regards domestic cocks as "living in the house" "imperitant suo generi et regnum in quacumque sunt domo exercent" (Nat Hist X.26 Mayhoff Teubner 1906). The point is not crucial however since "under the same roof" would naturally also imply a different diet from that of wild birds.

More seriously it is difficult to see why the diet of the birds and the dryness of their constitution is relevant at all-if theriac works identically on men and on wild fowl, it is curiously selective if it acts markedly differently on wild fowl on the one hand, and domestic fowl on the other. Futhermore, as the test of theriac on birds is meant to be a proxy for a test on humans, one would expect the domestic bird to be a better approximation of a human than the wild one. The relative dryness of various kinds of meat, considered as food or medicine, is a major concern in Galen. For differences in the relative dryness within one species between tame and wild populations Alim.Fac. III: VI 681.1–10 = CMG 5.4.2 344.25–345.7 Τῶν ἡμέρων ζώων ἡ κρασις ὑγροτέρα τῆς των άγρίων έστι διά τε την ύγρότητα τοῦ ἀέρος, ἐν ῷ διαιταται, και τὸ ῥάθυμον τοῦ βίου. τὰ δ' ἐν τοῖς ὄρεσι ταλαιπωρεῖταί τε καὶ κάμνει πολλὰ καὶ κατὰ ξηρότερον ἀέρα διατρίβει. διὰ τοῦτ' οὖν ἥ τε σὰρξ αὐτῶν ἐστι σκληροτέρα καὶ πιμελής ἢ οὐδ' ὅλως η όλίγιστόν τι μετέχει. ταύτη τοι καὶ ἀσηπτοτέρα πλείοσιν ἡμέραις διαμένει τῶν ήμέρων τε καὶ ἀργῶσ διῃτημένων ζώων. πρόδηλον δ', ὅτι καὶ ἀπέριττος ἡ ἐξ αὐτῶν έστι τροφὴ μάλλον, ὥσπερ ἡ ἐκ τῶν ἡμέρων τε καὶ ἀργῶν περιττωματική. τρέφειν τε οὖν ἀναγκαῖόν ἐστι τὴν τοιαύτην τροφὴν μαλλον εὐχυμοτέραν τε πολλῷ τῆς ἑτέρας ύπάρχειν. The dryness of the air in which they live and the arduousness of the life of wild animals compared to "lazy" domesticates is here what accounts for the difference, but differences of diet are not mentioned. But cf. also Vict.At. CMG 5.4.2 p. 441 sect. 56.1-57.1 where mountain and lowland birds of the same species vary in dryness of flesh not only because of the air they live in, but also because of their diet: ἔστι δὲ καὶ τὰ ἄλλα πάντα τὰ ἐν τοῖς ὄρεσι φυόμενα μακρώ βελτίω των έν τοῖς πεδίοις, καί μοι δοκοῦσι καὶ οἱ ὄρειοι στρουθοὶ μὴ μόνον τῆ λεπτότητι τοῦ ἀέρος ἀλλὰ καὶ ταῖς τροφαῖς οὐχ ἥκιστα πλεονεκτεῖν τῶν ἐν ἕλεσί τε καὶ πεδίοις διαιτωμένων Concern with this issue in the context of animals regarded as food or medicine for humans naturally follows from the fact of the four humour theory espoused by Galen; in the present context it is rather harder to account for. The reason for the experiment is also unexplained. The author claims to be making a xpíoic of the drug but this is neither for research and development purposes, since it is clear throughout the treatise that he is passing on the canonical recipe for theriac rather than seeking to improve it; nor is it for quality control purposes, since he proposes a quite different test for that purpose (see below).

p. 70) 10 τὰ θηρία] : τὴν θηριακὴν, the reading in P, cannot be right because it is clear from the rest of the sentence that some fowl have been given theriac to

drink and others not, whereas P's reading suggests that it is given to all of them. Arabic "Ich liess Hähne ... von den Vipern beissen" confirms this reading.

p. 70) 13–14 προδίδομεν τῆς θηριακῆς] προδίδωμι does not routinely take the genitive of the thing of which a share is given; of δίδωμι and its compounds only προσδίδωμι and μεταδίδωμι do so. However by a comparatively rare but perfectly legitimate construction "The genitive is used with verbs whose action affects the object only *in part* … Almost any transitive verb may be occasionally so used" (Hadley 1884, 236; cf Weir Smyth 1956, 320). This construction is favoured by the author of this treatise; cf. p. 72. l. 2 προσφέρονται τοῦ φαρμάκου. (For an instance elsewhere in Galen: βέλτιον εἶναί φησιν εὐθέως ἀπ' ἀρχῆς αὐτῷ δίδοσθαι τῆς πτισάνης, *HVA* XV 545 4–5) but apparently not recognised by P who changes the genitive to accusative here, and changes the verb to one which routinely takes the genitive at p. 72. l. 2 below.

p. 70) 17 The test proposed here for adulteration is the same as that for deterioration through ageing at p. 138. l. 2. The test is surprising: the suppression of diarrhoea in cases of cholera is indeed part of the  $\dot{\epsilon}\pi\alpha\gamma\gamma\epsilon\lambda$  ( $\alpha$  of the riac as set out in chapter 15 (see 142. l. 3 ff.) It may in fact be the case that theriac would have the anti-purgative effect claimed because of its opium content; the constipative effect of opioids is well documented (e.g. Hanks et al. 2009). But it is not clear why a test of this single one of the many δυνάμεις ascribed to theriac by the author should be a satisfactory test for the drug as a whole. So far as testing for aging is concerned, it might be that the opium (or other ingredients which contribute to the constipative effect) have the shortest useful life, so that if they have retained their efficiency there is a valid *a fortiori* argument that so too have the other ingredients; but if a similar test guarantees freedom from adulteration in respect of any ingredient, that must imply that the constipative effect of the drug is not the direct result of a constipative δυνάμις in one or more of the simples constituting the mixture, but arises only emergently from the precise mixture of all the ingredients, and that deviation from the recipe in respect of any one of the ingredients reliably nullifies the constipative effect.

Cf. Ant. I: XIV 3.17–4.11 for a discussion of the effect of the opium in theriac on Marcus Aurelius' sleep patterns and the observation that "such drugs", presumably opium-based ones, become weaker with age: εἴρηται γάρ μοι πολλάκις ἤδη τὰ τοιαῦτα φάρμακα χρονίζοντα πραότερον ἴσχειν αὐτόν. XIV 4.9–11

p. 70) 19–20 πλείστου ἀργυρίου] ἀνέομαι can take either genitive of price or dative (LSJ s.v. ἀνέομαι) rendering  $Q^{2}$ 's correction unnecessary.

p. 70) 21 εἰσὶ γὰρ [oũ] καὶ τῶν ὑγιαινόντων τινὲς (oũ) Q<sup>2</sup> transposes oũ from the former position to the latter. τινὲς with the definite article is quite common in Galen but usually in οἱ μέν τινες/οἱ δέ τινες constructions. In the present case a second oũ is required even if the first is correct and Q<sup>2</sup>'s emendation seems slightly the more probable.

p. 70) 21 έν ὅλφ καὶ παντὶ τῷ βίφ] ἑαυτῶν is a rare example of agreement between O and the Aldine edition against Q.

p. 70) 22 διὰ τὸ σκαιὸν, καὶ ἀνελεύθερον τοῦ τρόπου] Possibly an echo of Demosthenes 26.17 οὕτω σκαιός ἐστι καὶ βάρβαρος τὸν τρόπον. ἀνελεύθερον probably requires the sense "not free" rather than "base" or "slavish" since the danger of being plotted against is presumably a consequence of being a ruler.

p. 72) 2–4 ὥσπερ δὴ τὸν θεῖον Μάρκον καὶ ἡμεῖς οἴδαμεν ἐνθέσμως τὲ βασιλεύσαντα, καὶ ἀκριβῶς ἑαυτοῦ διὰ τὴν σύνεσιν τῇ συγκράσει τοῦ σώματος παρακολουθήσαντα] A puzzling passage raising several questions. Why the emphasis on Marcus Aurelius' "lawful rule" and why the wording "we ourselves know that …"? On the first point the explanation may be that this is part of the rhetorical strategy of praising the present emperors, part of which may require a limited amount of praise for their predecessor—see line 9 below and note. On the second point there is possibly an echo of *Ant*. I: XIV 3.16–17 τὰ μὲν οὖν κατὰ Μιθριδάτην ἀκούομεν· αὐτοὶ δ' ἡμεῖς ἴσμεν κατὰ τὸν Ἀντωνῖνον … "What we know about Mithridates is hearsay; but concerning Antoninus we have direct knowledge …" This may lend support to Labbé's theory (see introduction) of an author who is a *nugator* basing himself on *Ant*. who in this instance has failed to note that taking this expression out of context spoils its sense. The passage also presents a cluster of hapaxes and rare words—οἴδαμεν for ἴσμεν, ἐνθέσμως, δεδόξασται in the sense of "has acquired glory": see introduction.

p. 72) 6  $\delta\delta\xi\alpha\zeta\omega$  means "I hold an opinion" in 68 of the 72 occurrences of the lemma in Galen identified by TLG. Three times it means "to think well of/ esteem worthy" (*Hipp. Off. Med.* XVIIIb 790.10, *QAM* IV 772.7, *QAM* IV 790.8). Its use in the perfect passive meaning "has acquired glory" has no parallel in Galen but is found in Old and New Testament sources and frequently in subsequent writers in the Judaeo-Christian tradition, often in quotations of the passages of the Septuagint below:

Exodus 15.6 ή δεξιά σου, κύριε, δεδόξασται ἐν ἰσχύι· ἡ δεξιά σου χείρ, κύριε, ἔθραυσεν ἐχθρούς. Thy right hand, O Lord, is become glorious in power: thy right hand, O Lord, hath dashed in pieces the enemy. (King James Version)

- Exodus 15.21 "Αισωμεν τῷ κυρίῳ, ἐνδόξως γὰρ δεδόξασται· ἵππον καὶ ἀναβάτην ἔρριψεν εἰς θάλασσαν.
- Sing ye to the Lord, for he hath triumphed gloriously; the horse and his rider hath he thrown into the sea. (King James Version)
- Malachi 1.11 διότι ἀπ' ἀνατολῶν ἡλίου ἕως δυσμῶν τὸ ὄνομά μου δεδόξασται ἐν τοῖς ἔθνεσιν
- For from the rising of the sun even unto the going down of the same my name shall be great among the Gentiles (King James Version, modified)
- 2 Cor 3.10 καὶ γὰρ οὐ δεδόξασται τὸ δεδοξασμένον ἐν τούτῷ τῷ μέρει εἴνεκεν τῆς ὑπερβαλλούσης δόξης·
- For even that which was made glorious had no glory in this respect, by reason of the glory that excelleth.

For subsequent quotation see out of many examples e.g. Gregorius Nyssenus *Testimonia adversus Judaeos* 46 221.15 quoting Malachi 1.11. The word is used exclusively of the giving of worship to a god—usually Judaeo-Christian but cf. Sextus Empiricus *Adversus Mathematicos* 9 185.1–4: εἴγε μὴν ἡ Ἄρτεμις θεός ἐστιν, καὶ ἡ Ἐνοδία τις ἂν εἴη θεός· ἐπ' ἴσης γὰρ ἐκείνῃ καὶ αὕτῃ δεδόξασται εἶναι θεὰ ἡ Ἐνοδία καὶ ἡ Προθυριδία καὶ Ἐπιμύλιος καὶ Ἐπικλιβάνιος.

p. 72) 7–8 τῆ γὰρ περὶ τὸν βασιλέα γενομένῃ ὑγιεινῆ καταστάσει τὴν πίστιν τῆς ὡφελείας ἡ ἀντίδοτος μᾶλλον προσείληφεν.] Compare Ant. I: XIV 24 14–18 Ἀντωνίνου μὲν οὖν βασιλεύοντος τῶν πλουσίων ἡ θηριακὴ ἐσκευάζετο πολλοῖς, καὶ διὰ τοῦτο ἐνίοτε τῶν δυσπορίστων ἀπέλιπέ τινα θαυμαστὸν γὰρ ὅπως οἱ πλούσιοι τὰ τῶν αὐτοκρατόρων ζηλοῦσιν, ἢ βούλονταί γε φαίνεσθαι ζηλοῦντες. "When Antoninus was emperor for example theriac was made up by many of the rich and he sometimes some of the hard to come by ingredients were missing; for it is astonishing how the rich envy what the rulers have or at least wish to seem to envy it." The point is the same but the tone in *Ant*. appears to be satirical rather than laudatory.

p. 72) 10 The faint praise of Marcus followed by warmer praise for the present emperors possibly reflect the advice given by Menander Rhetor *Peri Epid*. 376.31–377.2 ἥξεις δὲ ἐπὶ τὴν τελειοτάτην σύγκρισιν, ἀντεξετάζων τὴν αὐτοῦ βασιλείαν πρὸς τὰς πρὸ αὐτοῦ βασιλείας, οὐ καθαιρῶν ἐκείνας (ἄτεχνον γάρ) ἀλλὰ θαυμάζων μὲν ἐκείνας, τὸ δὲ τέλειον ἀποδιδοὺς τῇ παρούσῃ.

ἔφθασε—has spread, extended: an unusual meaning of φθάνω. LSJ s.v. give the examples μέχρι γῆς Plot. 3.2.7; εἰς βορράν PFlor. 50.87 (iii a.d.).

p. 72) 10 χεχρήσθαι: O has χρήσθαι but the use of χεχρήσθαι with present meaning is standard (LSJ s.v. χράω (B)), is common in Galen and occurs elsewhere in this treatise (p. 148. l. 6).

p. 72) 11–13 ἐπεὶ μỳ μόνον τῷ παρὰ θεῶν ἔχειν τὸ βασιλεύειν ὑπερέχουσιν ἁπάντων, ἀλλὰ καὶ τῷ τῶν ἀγαθῶν ἁπάντων ἅπασι μεταδιδόναι ἡδέως,] for a rhetorical parallel cf. Dio Chrysostom's first Kingship Address to Trajan where it is said that εὐεργεσία, generosity to his subjects, is the one virtue that a king exercises voluntarily from a sense of joy rather than necessity: καὶ τοίνυν εὐεργετῶν ἤδεται πλείω τῶν εὐεργετουμένων, καὶ μόνης ταύτης ἐστὶ τῆς ἡδονῆς ἀκόρεστος. τὰ μὲν γὰρ ἀλλα τῆς βασιλείας ἀναγκαῖα νενόμικεν, τὸ δὲ τῆς εὐεργεσίας μόνον ἑκούσιόν τε καὶ εὕδαιμον. (Or. 1 23–24)

p. 72) 14 τοσούτον is the reading in L and in Q<sup>1</sup> but the Aldine has τοσούτω as does O. Either reading is possible if τοσούτον is regarded as an adverb; I have tentatively followed L but O may be correct.

p. 72) 18 γένηται] This is corrected to γένοιτο by the Aldine edition on the principle that εἴ (rather than ἐάν) followed by subjunctive is not legitimate in classical Greek. It is however a feature of Koine Greek of Galen's time (Nutton 1979 61–62); the TLG shows one instance in Galen of εἴ ποτέ + subjunctive, *Di.Dec.* I: IX 792 10–11 εἴ ποτε δ' εἰς τὴν ὀγδόην ἡμέραν ἢ τὴν δεκάτην ἐμπέσῃ λύσις ἀθρόα νοσήματος.

p. 72) 19–21 οὐ γὰρ περιμένοντες τὴν ἀνάγκην τῆς χρήσεως, τότε καὶ σκευάζουσιν αὐτὰ, ἀλλὰ πρὸς τὸ τάχος τῆς τῶν καιρῶν ὀξύτητος ἑτοίμην καὶ τὴν παρασκευὴν αὐτῶν φιλοκάλως ἔχουσιν.] This evidently cannot apply to theriac itself which requires a minimum five to seven years maturation (see Chapter XIV). Cf also *Ant.* I: XIV 65.15 ff. σύνθεσίν τινα τῷ αὐτοκράτορι Μάρκῳ Ἀντωνίνῳ ποιησάμενος, ὅλην εὖρον τὴν ἀντίδοτον ἱκανῶς τῶν ἀλλων ὑπερέχουσαν, ὥστε γευσάμενον αὐτῆς τὸν αὐτοκράτορα μὴ περιμεῖναι χρόνον, ὥσπερ ἐπὶ τῶν ἀλλων, ἐν ῷ πεφθήσεται τὸ φάρμακον, ἀλλ' εὐθέως χρῆσθαι, μηδὲ δύο μηνῶν ὁλοκλήρων ἐν τῷ μεταξὺ γενομένων." "… and when I was making up some compound for Marcus Antoninus from it I found that the whole drug excelled all others to the extent that when the emperor had tasted it he waited no time as in the case of other drugs to let the mixture mature but used it immediately after the passage of not even two months."—in other words even "instantaneous" use of theriac requires a gap of two months after manufacture. Note however that the present passage concerns the provision of  $\tau \dot{\alpha} \phi \dot{\alpha} \rho \mu \alpha \varkappa \alpha$  in general, not theriac in particular, by the emperors.

p. 72) 22–23 Άντίπατρος, ὁ τὰς Ἐλληνικὰς ἐπιστολὰς αὐτῶν πράττειν πεπιστευμένος] i.e. ab epistulis Graecis, their official Greek secretary. See Philostratus *Vitae sophistarum* Cap. 2 606.27–607.34 for his life. The case study is imprecise, specifying neither the disease of the kidneys in question nor the drugs used against it. Book X of Comp. Med. Loc. (*Comp. Med. Loc.* X: XIII 321ff.) is entirely concerned with compound remedies for the kidneys, but does not mention theriac. Theriac is however said in chapter 15 of *Ther.Pis.* to break down kidney stones: p. 140. l. 23

p. 74) 1 Arria: nothing is known about this woman beyond what can be deduced from this passage. Bowersock (1969) 84 reporting Groag's proposal in PIR<sup>2</sup>, A1116 that "she may be the woman of that name known as the wife of M. Nonius Macrinus, consul in 154", says that this "may not be a bad idea"; it does put the anecdote very late in her life if that is correct given that the emperors' putative medical partnership cannot begin before their return to Rome in 203 (see introduction) 49 years after her husband's consulship. Note that Bowersock mistakenly states that "Galen affirms that he cured this lady, a dear friend of his" (1936) 84 citing this passage; the cure is effected by the emperors.

p. 74) 6–7 πιοῦσα γὰρ εὐθέως ἀνερρώσθη τε τὸν στόμαχον, καὶ ταχέως ἀπείληφε τῆς ὀρέξεως τὸ ἔργον.] Her stomach was immediately strengthened and she quickly recovered the matter of her appetite. Arabic kräftigte sich ihr Magensofortund sie bekam Appetit. The periphrasis τῆς ὀρέξεως τὸ ἔργον the matter of her appetite is unusual and may reflect the Latin construction with res, "rem appetentiae". cf. Chartier's translation "appetentiae opus."

p. 74) 10 ἤπειγε δὲ ὁ καιρὸς ἀποκριθῆναι: Q<sup>1</sup> omits ὁ καιρὸς, reading ἤπειγε δὲ ἀποκριθῆναι. The impersonal ἤπειγε, there was a pressing need, is a legitimate construction: LSJ s.v. ἐπείγω. The reading in Q<sup>1</sup> is in the main body of the text, not the result of a deletion, and is probably an accidental omission.

p. 74) 14 Chartier chapter heading (see Introduction p. 62): Τίνος ἕνεκα ἐκ πολλῶν σύγκειται ἡ ἀντίδοτος· ἔμφυτον δὲ πᾶσιν δύναμιν ὑπάρχειν, ἡν λόγῷ τε καὶ αἰσθήσει κρίνομεν. Kühn has ἰσχνεύομεν for Chartier's κρίνομεν. p. 74) 17 καὶ γάρ] ... ἐν τοῖς ἔργοις A difficult sentence which the Arabic translation simply omits. Galen elsewhere uses ποικιλία to refer to the complexity of a compound drug—*e.g. Comp. Med. Loc.* XII 667.17 ἐπειδὰν δὲ πῶν μὲν ἢ κεκενωμένον τὸ πῦον, ὑπολείπηται δέ τις σκληρότης, τοῖς καλουμένοις μαλακτικοῖς φαρμάκοις χρηστέον, ὧν τὴν ποικιλίαν τῆς ὕλης τε καὶ τῆς συνθέσεως ἐν τῷ περὶ μαλαγμάτων ἐδήλωσα λόγῳ. We would expect the genitive rather than the dative τοῖς μίγμασι. The periphrastic participle ἐστιν ἔχουσα for ἔχει is rare but permissible in classical Greek—*e.g. Soph. O.T.* 580 ἢ θέλουσα.

p. 76) 2 Galen elsewhere claims that the empiricists explicitly state that they arrive at cures by dreams and by observing and mimicking the actions of fate: *Comp. Med. Gen.* I: XIII 366.2–7 *Adv. Jul.* XVIIIA 250.2–6

p. 76) 4 The discussion of the relative roles of  $\lambda \delta \gamma \circ \zeta / \lambda \delta \gamma \circ \zeta / \lambda \delta \gamma \circ \zeta / \lambda \delta \gamma \circ \zeta \rangle$ and  $\pi \epsilon i \rho a / \epsilon \mu \pi \epsilon \circ \rho a$  on the other is central to Galen's theory of medicine in general and pharmacology in particular: see introduction and cf *Sect.Int.* I 74.10, *Comp. Med. Gen.* II: XIII 376.2–5 δ μεν γάρ λόγος εύρίσκει τὴν σύνθεσιν, ἡ δὲ πεῖρα κρίνει τὴν τῶν εὑρεθέντων ἀρετὴν, ὥστε καὶ τοῖς ἀπείροις λογικῶν μεθόδων πιστεύεσθαι τὰ τεχνικῶς συντεθέντα. In other scientific contexts, *Nat. Fac.* I: II 47.4–8 ἀεἰ γὰρ τὸ μὲν ἀκόλουθον φυλάττειν βούλεται, [sc. Asclepiades] τὸ δ' ἐναργῶς φαινόμενον ἀνατρέπειν ἕμπαλιν Ἐπικούρῳ. τιθεἰς γὰρ ἐκεῖνος ἀεὶ τὸ φαινόμενον αἰτίαν αὐτοῦ ψυχρὰν ἀποδίδωσι.

p. 76) 7 SMT I: XI 382.1-384.8 on chalk, SMT II: XI 465 on roses.

p. 78) 1 ὅτι των ἀπλῶν φαρμάχων ... τὰ δὲ μικτήν. One of the few headings in L. Written without spacing above or below but occupying an entire line to itself. I have printed it in the text on the authority of L.

p. 78) 5 Scammony, Convolvulus Scammonia. For confirmation that in Galen's view it draws out yellow bile *cf. Nat.Fac.* I: II 42.18–43.3

p. 78) 6  $\dot{\epsilon}\pi(\theta \upsilon \mu \upsilon \nu)$  a parasitic plant growing on thyme, *Cuscuta Epithymum LSJ s.v.* Causes evacuation of black bile—*MM* XIV: X 977.7–8. The Arabic has epithymum from Crete rather than Attica.

p. 78) 7 ὁ κνίδιος κόκκος] ὁ κνίδιος κόκκος: berry of the shrub κνέωρον (Daphne Gnidium), used as a purgative *LSJ s.v.* Purges phlegm—*SMT* III: XI 612.10–11. Galen specifies it as an example of a drug with a specific attractive power, arguing against Asclepiades, *Nat. Fac.* I: II 42.5–11.

p. 78)10 The argument set out here against Asclepiades, his theory of solids and voids and consequent view on the true effects of drugs which draw humours out of the body is strikingly similar both in tone and content to *El. Ex Hipp*.II: I 499.1–501.11 and *Nat. Fac.* I and constitutes one of the more powerful arguments for saying that this tract is either by, or a deliberate mimicking of, Galen. See introduction.

p. 78) 12 λέγοντι ... ὑπόθεσιν I have restored the reading in L; Q<sup>2</sup> deletes λέγοντι and substitutes διὰ presumably because he is suspicious of the expression ὑπόθεσιν λέγειν, to state a hypothesis, which is however allowable: Aristotle *Metaphysics* 1086a 10–11 ἰδίας γὰρ καὶ οὐ μαθηματικὰς ὑποθέσεις λέγουσιν where the sense is clearly "they are stating hypotheses which are *sui generis* and not mathematical" not "they are saying that hypotheses are ..."; cf. also Plutarch *Moralia* 1057 A 7 πλάσματα λέγειν καὶ κενὰς ὑποθέσεις. The emendation is unnecessary and makes an awkward sentence more awkward in that removing λέγοντι leaves nothing for τούτῷ to refer to.

p. 78) 24 παιδαριωδώς] : For the attack on Asclepiades cf. *Nat. Fac.* I: II 57.2–3 τών μεν Άσκληπιάδου λήρων ἐπιλαθώμεθα.

p. 80) 4 τὴν Μαγνῆτιν λίθον: the manuscripts, and editons prior to Kühn have μαγνίτην or μαγνίτιν. No such word is recognised by LSJ or occurs elsewhere except in very late sources, with the exception of Galen *SMT* XII 204.10–12 Τῶν λίθων δ' ἐστὶ μία καὶ ἡ μαγνῖτις τε καὶ Ἡρακλεία καλουμένη, παραπλησίαν ἔχουσα τῷ αἰματίτῃ τὴν δύναμιν. The Kühn text of Galen has Μαγνῆτιν at *Loc. Aff.* I: VIII 66.13 *Loc. Aff.* VI: VIII 422.4 and Μαγνῆτις *SMT* III XI 612.4

Galen refers to the magnet also called  $\dot{\eta} \lambda i \theta_{00} \zeta \dot{\eta}$  Ήρακλεία in several places against the atomists in support of the existence of specific attraction between specific herbs and humours (e.g. *Nat. Fac.* II 44.13 ff.)

p. 80) 5 Homer Odyssey 17.217-218:

"νῦν μὲν δὴ μάλα πάγχυ κακὸς κακὸν ἡγηλάζει, ὡς αἰεὶ τὸν ὁμοῖον ἄγει θεὸς ὡς τὸν ὁμοῖον."

(Melantheus the goatherd insulting Odysseus and Eumaeus): "See now how one evil man leads another about, as god always leads like to like"; my translation follows *LSJ s.v.*  $\omega \varsigma$  C. III in taking the second  $\omega \varsigma$  as a preposition, *contra* Lattimore ("like guides what is like itself, just as a god does") and other translators. Lattimore seems to take  $\tau \delta v \delta \mu o \delta v$  as nominative. Line 218 is quoted by Plato *Lysis* 214a, Aristotle *Magna Moralia* 1208b 10, in both cases on the subject of friendship.

p. 80) 8 Chartier chapter heading (see Introduction p. 62): Τὰ ἀπλᾶ τῶν φαρμάκων συνθέτους ὡς ἐπὶ τὸ πολὺ ἔχειν δυνάμεις καὶ διάφορα τοῦ σώματος μόρια βλάπτειν τε καὶ ὦφελεῖν, καὶ διαφόροις διάφορα προσήκειν.

p. 80) 9 Compare the following passage from the Renaissance forgery Commentary on Hipp. Epidem. 2, XVIIa 402–403: εύρίσκομεν γοῦν ἐν τῆδε τῆ ἐξετάσει τὰ μὲν τῶν φαρμάκων καθ' ὅλης ἐνεργοῦντα τὰς οὐσίας, τὰ δὲ μικτὸν ἐν τῆ οὐσία τὴν δύναμεν (sic) ἔχοντα καὶ διπλῆν ἐνέργειαν ἀποτελοῦντα και ταῦτα οὕτως ἐναργῶς ενίοτε, ὡς καὶ τὰ ἐναντιώτατα ὑπ' αὐτῶν γίγνεσθαι, καὶ τοῦτο θαυμαστον τοῖς ὀρῶσιν εἶναι. καὶ γὰρ ὁ τῆς κράμβης χυλὸς ἐκταράσσει τὴν κοιλίαν, τὸ δὲ λάχανον αὐτὸ ἡ κράμβη ἀπέχει, καὶ τἄλλα πολλὰ κατὰ τοῦτον τὸν τρόπον.

p. 80) 13 λαπάθου] monk's rhubarb, Rumex Patientia (LSJ s.ν.). Referred to elsewhere in Galen mainly as a drug applied externally. No one would eat it raw (*Alim. Fac.* II: VI 635.6–7). Its seed is a cure for diarrhoea and dysentery (*SMT* VII: XII 56.15–17)

p. 80) 15 ὁ τῆς κράμβης χυλὸς Cabbage juice. *SMT* III: XI 575.6–576.1 gives a detailed account of an experiment involving multiple infusions to demonstrate that cabbage juice loosens the bowels while cabbage itself has the opposite effect. Cabbage juice is also good for ingrowing eyelashes (*Comp. Med. Loc.* IV: XII 800.15) and loss of voice (*Comp. Med. Loc.* VII: XIII 48. 3–4)

p. 80) 16 This passage has very close parallels elsewhere in Galen; *Vict. At.* 51.4–52.1, *SMT* III: XI 575.6–576.1, 576.7–17. The former passage warns that shellfish, and soup made of shellfish or of old cocks, loosen the bowels; the latter gives the same warning and also makes the point that the actual flesh as opposed to the soup has the contrary effect, and goes on (III: XI 576 13–18) to make the same point about flakes of copper (see below). It seems probable that the author of the passage in *Ther.Pis.* either was also the author of the passage in *SMT* or had read it very carefully.

p. 80) 16 τας κοιλίας: L has a good reading here which N and Q do not preserve. They have τὴν κοιλίαν perhaps influenced by the same phrase in the previous sentence; the plural is required by αὐτάς at the end of the following sentence.

p. 80) 17 àlón Aloe vera LSJ s.v. χαλκοῦ λεπὶς "flakes that fly from copper in hammering" LSJ s.v. λεπίς. Frequently appear together as ingredients of wound dressings (e.g. Comp. Med. Gen. II: XIII 494.10, 557.3–4). The same paradox that they are astringent applied to wounds but laxative taken internally is discussed SMT III: XI 578.1–4: θαυμάζεται δὲ καὶ ταῦτα πρὸς τῶν πολλῶν καὶ νομίζουσιν ἄπορον ὑπάρχειν, εἰ στῦφόν τι σῶμα καθαίρειν πέφυκεν, οἶον ἀλόη καὶ λεπὶς χαλκοῦ καὶ χαλκὸς κεκαυμένος·

p. 80) 21 Curds and whey: SMT III: XI 575.3-5 for the same point.

p. 82) 4 τὴν γινομένην: the text is difficult though the overall meaning is not in doubt. L has εἰ μὴ τὴν περὶ τῆς γινομένης διὰ τῆς ὄψεως πίστιν παρὰ τοῦ γινομένου λάβωσι and the subsequent mss. and edd. have variations on this. The problem is that περὶ whether allowed to stand or emended with Q<sup>2</sup> to παρὰ is not needed to govern either τῆς ὄψεως, governed by διὰ, or τὴν πίστιν, the direct object of λάβωσι. Reading περὶ τῶν γινομένων with N adds nothing to παρὰ τοῦ γινομένου later in the sentence. The simplest solution is to delete περὶ τῆς as an error which has crept in because of the similar παρὰ τοῦ γινομένου.

p. 82) 4 Cf. Paulus Medicus 7.3.18 ἐν δὲ τῷ Περὶ τῆς θηριακῆς ὁ Γαληνός φησιν τὴν τρίφυλλον τὴν τῷ ὑακίνθῷ ὁμοίαν, ὁπόταν τοῦ ἔαρος ἐγκύμων γενομένη τὸ σπέρμα ὅμοιον ἔχῃ τῇ ἀγρίᡇ κνήκῷ, ἀφεψομένης αὐτῆς τὸ ζέμα φαλαγγίου μὲν ἢ ἔχεως δήγματι καταντλούμενον θεραπεύειν αὐτό, ὑγιεῖ δὲ τόπῷ προσφερόμενον, φησίν, ὅμοιον πάθος ἐργάζεται τοῖς ὑπό τινος τούτων δηχθεῖσιν.

p. 82) 4–5 τὸ γοῦν τρίφυλλον ἡ βοτάνη] τρἴφύλλον, τό, clover, Trifolium fragiferum (LSJ s.v.). Seed of τρἴφύλλον features in a number of recipes elsewhere in Galen, in particular as an ingredient in theriacs said to be effective against spider bite *e.g. Ant*. XIV 186.1–4, 202.13–15. There is no reference in Galen nor elsewhere in Greek literature to the peculiar quality of clover seed referred to here but an apparently similar account is given in Pliny *Nat. Hist.* 21.152–153. Labbé (1660, 29) regards the "false statement" about trefolium here and that about helenium at at p. 112. l. 22 as evidence against Galen's authorship: "Quomodo a Galeno hac aetate, hac experientia, hac eruditione, ex vulgi sermone relata, quae de trifolio et helenio leguntur, omnino mendosa, iisque contraria, quae alibi scripsit?" There is as far as I can see no discrepancy between what Galen says in these

passages and what he says elsewhere either about helenium or about clover. Labbé's objection is presumably to what he regards as the unscientific tone of the passages.

p. 82) 5 ἐγκύμων: usually "pregnant" but cf. Dioscorides 3.7.3.1 ἡ πόα ἐγκύμων σπέρματος.

p. 82) 12 Hemlock and starlings; hellebore and quail. A favourite observation of Galen: *Temp*. III: I 684.2–4, *Alim.Fac*. II: VI 567 12–13, *SMT* I: XI 382.4–7. Outside Galen the same point is made by Alexander of Aphrodisias, concerning both starling and quail: *Problemata* 48–49 ὄρτυγές τε σιτοῦνται τὸν ἐλλέβορον τοῖς ἀνθρώποις δηλητήριον ὄντα· ψάροι δὲ τὸ κώνειον· Alexander was probably appointed to a chair of philosophy in Athens between 198 and 209 which makes it impossible to establish priority between him and the Galenic passages. The point about quail is attributed by Diogenes Laertius to Pyrrho of Elis (c. 360–270 BC) the Sceptic philosopher (and Galen's standard example of the worst excesses of scepticism: Hankinson (2008) 158–159). Diogenes says that this fact and similar apparent paradoxes underlay Pyrrho's belief that nothing can be properly known or understood (*Vitae philosophorum* 9 80.6–7). The point about quail also in Lucretius IV 641 and Pliny *Nat. Hist.* 10 69.4–5; starling and hemlock not in Latin at all nor in Greek prior to Galen or Alexander of Aphrodisias.

p. 82) 15 Sea hare, blister beetle: very frequently mentioned together by Galen and the identical point is made *Comp. Med. Gen.* I: XIII 364.1–5: ἀλλὰ τοῦτό γε τὸ σκῶμμα δηλοῖ τοὺς ταῦτα λέγοντας εἰς τοσοῦτον ἀπείρους εἶναι φαρμάκων δυνάμεως, ὡς ἀγνοεῖν ὑπὸ μὲν τοῦ θαλαττίου λαγωοῦ μόνον τῶν πάντων ἐν τῷ σώματι μορίων ἑλκόμενον πνεύμονα, κύστιν δ' αὖ μόνην ὑπὸ τῶν κανθαρίδων.

p. 82) 23 Hippocrates *Epid.* 2.3.2. There are serious problems with the text as transmitted in this treatise and in the Hippocratic tradition. The apparatus gives the readings in the most recent edition of the *Epidemics* (Smith 1994) which takes account of *Ther.Pis.* and the Arabic text of *Commentary on Epidemics* 2. but of course is primarily based on the Hippocratic textual tradition. The most problematic passage is  $\xi\omega\varsigma \tau \alpha \pi\lambda\epsilon$ îo $\tau\alpha \mu\epsilon$  (Littré/Smith). Littré's reading "I pass over most of these things" agrees with the Arabic text of Galen *Commentary on Epidemics* 2. It is hard to make any sense of the transmitted text of *Ther.Pis.* Rota followed by other translators extracted the general sense that most of the procedures listed reduce the bulk of the plant: "donec plurima plus minuant" Rota, "donec plerunque plurima minuantur" Chartier;—"until most of them shrink more" (more than what being

unexplained). minuantur makes better sense than minuant but  $\mu \varepsilon i \delta \omega$  in the active is transitive (LSI s.v.) and therefore incapable of meaning minuantur. μείω ἢ πλείω is an obvious emendation (compare Ἐφ' οἶσί τε καὶ ὁκοῖα τὰ σημεῖα, καὶ πλείω ἢ μείω γινόμενα, χάσμη, βὴξ, πταρμὸς, σκορδίνημα, ἔρευξις, φῦσα· πάντα τὰ τοιαῦτα διαφέρουσιν. (Hp. Epid. 2.3.1.36-38)) So the text as amended reads "I pass over size of dose (μείω η πλείω) and type (όκοῖα) of drug" while Smith/Littre and the Arabic version of the *Commentary on Epidemics* 2 omit μείω η πλείω and have όχόσα in place of όχοῖα and therefore "I pass over size of dose (όχόσα)". Either reading makes good sense. The Arabic version of Ther.Pis. as its editor says "folgt nicht dem Wortlaut des Hippokrates, sondern einer Kommentierenden Paraphrase". The implication that the authors of the two Galenic tracts are working from different texts does not necessarily imply that they are two different authors: it is conceivable that Galen worked from different copies of Hippocrates at different times. Note however that in the commentary on the passage Galen speaks of having reviewed many manuscripts of the passage.

p. 84) 12–13 ἕνιοι δὲ ἀφυῶς οὕτως ἔχουσι πρὸς τὰς φαρμακείας] : ἀφυῶς ἔχειν πρός τι to be naturally unsuited to something; LSJ s.v. ἀφυής citing Aristotle and Plutarch.

p. 84) 15 Chartier chapter heading (see Introduction p. 62) Τί ποτ' ἐπήγαγε τοὺς ἰατροὺς πρὸς τὴν σύγκρασιν πολλῶν ἁπλῶν. καὶ τίς ὁ πρῶτος ἐπιβαλῶν τῇ θηριακῇ τὰς ἐχίδνας.

p. 84) 15 Galen finds it notoriously difficult to explain in general the theoretical basis for designing multi-ingredient drugs; see Vogt (2008) 312–317. Compare the claim at page 76, line 26 that drugs are tailored to the constitution of the patient.

p. 84) 21 τετεχνολόγηται] The only occurrence of the verb τεχνολογέω in Galen. The cognate noun τεχνολογία occurs twice (*Dig. Puls.* VIII 872.4, *Praes. Puls.* IX 275.3) in both case being ridiculed as a term used by the followers of Herophilus.

p. 86) 9 ἐπιβουλὴν ἐργάζεται.] ἐπιβουλή means a plot: cf. the only other occurrence of the word in Galen *Praen*. XIV 623.14–16 εἰπόντος οὖν Εὐδήμου ταῦτα καὶ τοιαῦθ' ἕτερα καὶ προσθέντος ὡς εἰ μὴ ταῖς πανουργίαις ἡμᾶς βλάψαι δυνηθεῖεν, ἐπὶ τὴν διὰ τῶν φαρμάκων ἐπιβουλὴν ἔρχονται· "This was the general outline of Eudemus' message and he added the further warning that, if they could not harm me by their intrigue, they would resort to poison plots" (tr. Nutton). However the cognate adjective ἐπιβούλος is used by Plutarch of toads and snakes as enemies of man—τὰ γὰρ ἐπίβουλα καὶ πολέμια τῶν ἀνθρώπων, φρύνους καὶ ὄφεις *Quaest. conviv.* 727 f 4 so the text can probably be allowed to stand. The Arabic text omits the whole sentence.

p. 86) 10 διὰ γὰρ τὸ ἀφύλακτον] : The phrase can mean metaphorically "being taken unawares" (LSJ s.v. ἀφύλακτος) which would however in this context add nothing to οὐκ εἰδὼς. I take it to mean "not supplied with an antidote."

p. 86) 10 έαυτῷ πολλάκις προσφέρει τὸ φάρμακον] : often unwittingly administers poison to himself: cf. *POxy* 472.5–7 εἶχεν μεν οὖν αἰτίας τοῦ καὶ αὐτὸς ἑ[αυ]τῷ προσενενκεῖν φάρμακον ἂς καὶ ἄλλοι πολλοὶ τὸν θάνατον τοῦ ζῆν προκρείναντες. φάρμακον meaning poison is unusual in Galen, δηλητήριον φάρμακον being the standard phrase (e.g. *SMT* V: XI 761.10–11 and see above p. 86. l. 7 τῶν δηλητηρίων φαρμάκων).

p. 86) 11 καὶ ἄλλως ἀγνοῶν] : "and besides not recognising it." This seems to add little to οὐκ εἰδὼς earlier in the sentence; the pleonasm is however not enough to justify an attempt at emendation.

p. 86) 11  $\epsilon$ i' $\tau\epsilon$ ] :  $\epsilon$ i' $\tau\alpha$  in the mss. cannot be allowed to stand. The sense is clearly that some people take poison unwittingly and others get bitten by snakes, not that the same individual first takes poison and then gets bitten by a snake. This is confirmed if confirmation is needed by the Arabic text.  $\epsilon$ i' $\tau\epsilon$  "or" is an obvious emendation. It is rare, in prose generally and in Galen, for  $\epsilon$ i' $\tau\epsilon$  to appear on its own and I have therefore supplied a matching  $\epsilon$ i' $\tau\epsilon$  earlier in the sentence where it may have dropped out because of its position between two superficially similar words.

p. 86) 13 ἄνθρωπος δὲ, φησὶ, Καρχηδόνιος οὑτος] : Hannibal. The story is attested by Nepos Hannibal 23. 11, Justinus 32.4.6–8, Frontinus Strat. 4.7.10–11. See Mayor (2009) 188–189 and 285 n. 10. The sources agree that Hannibal's opponent is Eumenes II of Pergamum. The fact that Eumenes is not identified is puzzling if our author is Galen given his usual pride in Pergamum on which see Nutton (1979) 177 note on P. 90,9 "His homeland, Asia Minor and Pergamum, is prominent in Galen's thoughts and affections. Despite his long residence in Rome, he still considers Pergamum his home and often allies himself with its inhabitants in his choice of words. "Among us" is at Pergamum; "our king" is Attalus …"; Nutton (1997) 141.

p. 86) 24 Ἀνδρόμαχος] Identified as ὁ Νέρωνος ἀρχιατρὸς Ant. I: XIV 2.14 and distinguished from his son also called Andromachus who wrote a version of the theriac recipe in prose Ant. I: XIV 42.11–13. Erotian Vocum Hippocraticarum collectio 29.3 is addressed to ἀρχιατρὲ Ἀνδρόμαχε and Dioscorides addresses τιμιώτατε Ἀνδρόμαχε 1.Pr. 1.1 and 2.Arg. 1.2, and ὡ φίλτατε Ἀνδρόμαχε 2.168.1.6. Recipes by Andromachus (usually not specified as father or son but see Comp. Med. Loc. I: XII 438.12–13 ἀλλο πρὸς φαλάκρωσιν, ὡ ἐχρήσατο Ἀνδρόμαχος ὁ νεώτερος.) are frequently quoted with approval by Galen in his pharmacological works and he is credited with a three volume work on pharmacology at Comp. Med. Gen. II: XIII 463.4–7. The statement that he was of Cretan origin seems to be based solely on the false reading in Ther.Pis. p. 66. l. 10 and should be ignored.

p. 86) 26 ἐν ἔπεσι: in verse. Galen states the advantage of verse that it reduces the scope for corruption of the text *Ant.* I: XIV 32. 5–9 ἐπαινῶ δὲ καὶ τὸν Ἀνδρόμαχον ἐμμέτρως γράψαντα τὴν θηριακὴν αὐτὴν, ὥσπερ καὶ ἄλλοι τινές. ὁ δὲ Δαμοκράτης καὶ τἄλλα πάντα διὰ μέτρων ἔγραψεν ὀρθῶς ποιήσας. ἥκιστα γὰρ οἱ πανοῦργοι δύνανται διαστρέφειν αὐτά. *Comp. Med. Gen.* V: XIII 820.15–17 Εἴρηταί μοι πολλάκις ὡς οὐ μόνον εἰς μνήμην αἱ ἔμμετροι γραφαὶ χρησιμώτεροι τῶν πεζῆ γεγραμμένων εἰσὶν, ἀλλὰ καὶ εἰς τὴν τῆς συμμετρίας τῶν μιγνυμένων ἀκρίβειαν.

p. 88) 7 Chartier chapter heading (see Introduction p. 62). Άνδρομάχου πρεσβυτέρου, Νέρωνος ἀρχιάτρου θηριακὴ δι' ἐχιδνῶν ἡ καλουμένη Γαλήνη. Μέρος α'. τοῦ ποιήματος περιέχον τὴν τοῦδε καθιέρωσιν, τά τε ὀνόματα τῆς θηριακῆς καὶ δυνάμεις, τὴν τε δόσιν, καὶ τὸν τρόπον τοῦ λαμβάνειν, καὶ τὸν χρόνον τῆς χρήσεως. Kühn omits the second sentence, and the whole chapter heading for chapter VII.

p. 88)<sub>7</sub> Andromachus poem: Heitsch (1963) collated inter alia (using my sigla) L, M, N, O, P, Q. I have printed the text in L unless otherwise indicated. L has glosses for the obscure words in the poem written above the line (these glosses are also in M N and Q); these are clearly (on metrical grounds) explanatory rather than alternative readings. I have therefore recorded them in these notes, rather than in the apparatus, as "L gloss:"

p. 88) 7 K $\lambda$  $\hat{\upsilon}\theta\iota$ ] L gloss: ἀx $\upsilon$  $\iota$ ε. K $\lambda$  $\hat{\upsilon}\theta\iota$  is commonly the first word in a prayer to a god; e.g. Il. 1.37 and frequent elsewhere in Homer and subsequently, and establishes both the epic and the adulatory claims of the poem.

p. 88) γ πολυθρονίου] L gloss: πολυφαρμάχου. Nicander uses θρόνα, drugs, Th. 99, 493. Cf. Theoc. 2.59.

p. 88) 7 βριαρόν] L gloss: ἰσχυρόν. Cf. Il. 16.413, 19.381

p. 88) 8 ἀδειμάντου] L gloss: ἄφοβου

p. 88) 8 δώτορ] L gloss: δοτήρ. cf. SIG3 814 = IG VII 2713 for Nero as giver of freedom.

p. 88) 9 ίλαρήν] L gloss: αὐτὴν τὴν ἀντίδοτον

p. 88) 9 ἐπικλείουσι] L gloss: ὀνομάζουσι

p. 88) 9 Γαλήνην] L gloss: τῶν θανατοφόρων καὶ δηλητηρίων

p. 88) 10 εὔδιον] L gloss: γαληνοποιόν

p. 88) 10 χυανών οὐχ ὄθεται λιμένων.] L gloss: ζοφερών κυμάτων ἤτοι τών θανατοφόρων δηλητηρίων ἐπιστρέφεται. Meaning unclear. Heitsch (1963) refers to *h. Cer.* 347 <sup>°</sup>Aιδη κυανοχαῖτα καταφθιμένοισιν ἀνάσσων and to Soph.*Ant.* 1284 ἰὼ δυσκάθαρτος <sup>°</sup>Aιδου λιμήν, suggesting that the metaphor is for Hades. In the cases he cites however Hades is expressly mentioned; they do not therefore constitute strong evidence that we should understand Andromachus to be referring to Hades here. The gloss in L suggests the highly compressed "is not troubled by waves (a metaphor for lethal and harmful [drugs and wild beasts]) and therefore does not seek harbours to escape them".

Cf. Cap. XV p. 138 l. 17 for an etymological explanation of the name "Galene", literally "stillness of the sea, calm" (LSJ), as applied to the drug.

p. 88) 11 μήκωνος] L gloss: τῆς βοτάνης

p. 88) 11 ἀπεχθέα] L gloss: τὰ ἀπεχθέα

p. 88) 11 θλίψας] L gloss: ἀποθλίψας

p. 88) 12 χανδὸν] L gloss: ἀκρατῶς πίνει

p. 88) 13 πλήσει] L gloss: γεμίσει

p. 88) 13 γένυν] L gloss: τὰς γνάθους

p. 88) 14 μέμψαιτο] L gloss: φοβηθείη

p. 88) 15 θερμὴν θάψον] L gloss: τὴν ὀξέως ἀναιροῦσαν θαψίαν. LSJ θάψος, ἡ, *fustic, Rhus Cotinus used for dyeing yellow*, brought from the island of Thapsos; θαψία, ἡ, deadly carrot, *Thapsia garganica*. cf. Nic. *Alex*. 570 where θάψος is a poison. As Rhus cotinus (Cotinus coggygria) is not poisonous the gloss in L may be correct in taking θάψος here as a synonym of θαψία.

p. 88) 15 ώκύμορον] L gloss: ταχυθάνατον

- p. 88) 15 πόμα Μήδης] Μήδη = Μήδεια; cf. Euphorio ed. Powell Oxford 1925 fr. 14
- p. 88) 16 αίμηρῶν] L gloss: αίματηρῶν
- $p.\,88)$  17 où ζοφερής <br/> לצו<br/>ός] L gloss: où<br/>δ<br/>צ דοῦ ζόφον <br/> <br/>ל $\mu\pi$ οιοῦντος <br/> לצנως
- p. 88) 18 τύμματα, καὶ ξηρῆς] L gloss: τραύματα καὶ τῆς ξηρανούσης
- p. 88) 18 οὐκ ἀλέγοι] L gloss: οὐ φροντίσης
- p. 88) 19 τήνδε] L gloss: τὴν ἀντίδοτον
- p. 88) 19 κορύσσεται] L gloss: ὁπλίζεται
- p. 88) 20 ἀδηρίτων] L gloss: ἀκαταπονήτων
- p. 88) 20 γόων] L gloss: θρήνων
- p. 88) 21 οὐ μὲν] L gloss: οὐδαμῶς
- p. 88) 21 ἀπεχθόμενος] L gloss: μισητὸς

p. 88) 21 Heitsch rightly athetises ἀπεχθόμενος καὶ δρύας, the reading of the mss. LSJ cite only this passage for δρύας meaning a kind of snake. The proximity to δρυίνας *infra*, apparently a different kind of snake, casts doubt on the reading δρύας. πτύας as conjectured by Iuvenis in his 1575 translation (Ptyas) seems an obvious improvement; cf. cap. VIII *infra* where the list of poisonous snakes appears to be partly influenced by the list here.

p. 88) 21 ἀντιάσειε] L gloss: συναντιάσειε

p. 88) 22 κατὰ φωλειὸν] L gloss: ἐν τῷ φόλεῳ αὐτοῦ

p. 88) 22 θερμὸς ἔνερθε μένοι] L gloss: κάτωθεν θερμὸς ὢν οὐ βλάψει. Heitsch states that he "does not understand" θερμὸς; nor do I. Note that the antidote here appears to have the quasi-magical effect of discouraging snakes from attacking in the first place, rather than simply being prophylactic against the effects of a bite.

p. 88) 23 οὐκ ἀλέγοι] L gloss: οὐκ ἐπιστρέφεται ὁ τὴν ἀντίδοτον πεπωκὼς.

p. 88) 24 αἰμόρρους] cf. p. 102 l. 16

p. 90) 1 Οὐ μὲν ἀπεχθήεντα] L gloss: οὐδὲ τὰ μισητὰ

p. 90) 1 σίνεται] L gloss: βλάπτουσι

p. 90) 2 φρικαλέον] L gloss: τὴν φρίκην ἐμποιοῦν

p. 90) 2 ἄχθος] L gloss: βάρος

p. 90) 2 ἔθηκε] L gloss: ἐπέβαλε

p. 90) 3 οὐχ ὕδρος] L gloss: οὕτε ὁ ἐπὶ χέρσον βοσκόμενος χέρσυδρος ὅτε τὰ ὕδατα ὁ ἀστρος ὁ καρκῖνος θερμότατος ὅτι ἐναντίος ὁ ἥλιος: neither the Chersydrus which feeds on dry land when the Crab star is at its hottest because it is opposite the sun. For the Chersydros—apparently from the name an amphibious snake—cf. Nic. *Ther.* 359

p. 90) 3 ὄθ'] L gloss: ὑπότε

p. 90) 4 θερμής] L gloss: ἐν θέρμη περιφέρεται

p. 90) 5 χέρσυδρος] L gloss: ὄς ὄντος τοῦ ἡλίου ἐν καρκίνῳ ἔρχεται: which comes out when the sun is in Cancer. cf. Nic. *Ther*. 367–371

p. 90) 5 θανάτω πεπαλαγμένα] L gloss: ὁ θανάτω γέμοντα

p. 90) 5 σύρων] L gloss: ἔχων

p. 90) 6 ἀντόμενος] L gloss: συναντήσας

p. 90) 6 γλυκεροῦ] L gloss: γλυκέος

p. 90) 6 τέρμα] L gloss: τέλος

p. 90) 6 φέροι] L gloss: ἀπάξει

p. 90) 6 βιότου.] L gloss: ζωής

p. 90) 7 τῆ] L gloss: ταύτη

p. 90) 7 πίσυνος] L gloss: θαρρών

p. 90) 7 θέρους] L gloss: κατὰ καιρόν

p. 90) 7 Καΐσαρ] L gloss: ὦ

p. 90) 8  $\Lambda$ ιβυχήν] cf. Lucan *Pharsalia* IX 587–937, approximately contemporary with this poem, for snakes as an especial hazard of Africa.

p. 90) 8 στείχων] L gloss: περιπατῶν

p. 90) 8 οὐκ ἀλέγοις] L gloss: οὐ φοβηθῆς

p. 90) 8 ψάμαθον] L gloss: ψάμμον

p. 90) 9 μόρον] L gloss: σοι θάνατον

p. 90) 10 φρύνος] L gloss: ό

p. 90) 11 The poem turns from theriac's virtues as an antidote to its qualities as a panacea for diseases in general. cf. Cap. XV where the treatise enumerates the diseases cured by theriac. Cap. XV begins with an express reference back to the poem via the etymology of "Galene" as a synonym for theriac and there is a degree of overlap in the diseases mentioned in the two passages, notably asthma, stomach problems, tetanus and rabies.

p. 90) 11 þεῖα] L gloss: εὐκόλως

p. 90) 11 Stomach problems: Cf. Cap. XV

p. 90) 11 ἄκος] L gloss: θεραπείαν

- p. 90) 11 οἰδήναντος] L gloss: ὀγκωθέντος
- p. 90) 12 θοὸν] L gloss: ταχέως
- p. 90) 12 ἰήσαις] L gloss: θεραπεύσαις

p. 90) 12 ἀσθμα] L gloss: τὸ δυσπνοικὸν νόσημα. Asthma—Cf. Cap. XV p. 140 l. 5 βοηθεῖ δὲ καὶ τοῖς δυσπνοοῦσιν

- p. 90) 12 κυλινδόμενον] L gloss: κινούμενον
- p. 90) 13 γαστρί] L gloss: γεννάται
- p. 90) 13 κυκώμενον] L gloss: ταρασσόμενον
- p. 90) 13 πνεῦμα] L gloss: παχὺ
- p. 90) 14 κωφὸν] L gloss: ἄκτυπον
- p. 90) 15 στροφάλιγγι] L gloss: στροφή
- p. 90) 15 ἀπηνέϊ] L gloss: ἀπηνῶς
- p. 90) 15 κυμήνειεν] L gloss: φλεγμαινει
- p. 90) 16 ἔντερον] L gloss: τὸ
- p. 90) 16 ταναοῦ] L gloss: μακροῦ
- p. 90) 16 ἔχωσι] L gloss: κωλύουσι
- p. 90) 16 κόλου] L gloss: ἐντέρου

p. 90) 17 χολόεντες] L gloss: τοῦ ἀπὸ χολὴς πάσχοντος. For sufferers from bile cf. Cap. XV p. 144 l. 18

- p. 90) 17 οσσε] L gloss: ὄμματα
- p. 90) 18 μερόπων] L gloss: ἀνθρώπων

p. 90) 18 χροιήν] L gloss: τὴν κατὰ φύσιν. C Q<sup>1</sup> have τὴν κάθαρσιν, establishing the descent of C from Q<sup>1</sup>.

p. 90) 18 άνηνάμενοι] L gloss: άρνησάμενοι μεταβάλλοντες. C Q<sup>1</sup> μεταμέλλοντες

p. 90) 19 ίλάσκωνται] L gloss: ἐξευμενίζοντες. For jaundice cf. Cap. XV p. 140 l. 18.

p. 90) 19 μηδ' ἐπὶ θοίνας] L gloss: ἤτοι ἀνόρεκτικοι

p. 90) 20 σφιν] L gloss: αὐτοῖς

p. 90) 20 πετάσειε] L gloss: ποιήσειε

p. 90) 20 πέρας] L gloss: της ζωης

p. 90) 21 μοῦνον] L gloss: μόνον

р. 90) 21 кат<br/>ηφέα] L gloss: кат<br/>ηφεῖς καὶ μικρόψυχοι (C Q² μακρόψυχοι) ὄντες

p. 90) 22 σφετέρων ἤθεα κηδομένων] L gloss: τὴν συντροφίαν τῶν φροντιζόντων αὐτὴν (αὐτοις N Q¹ C)

p. 90) 23 κακοεργόν] L gloss: κακοποιόν

p. 90) 23 ὦχρον] L gloss: ὠχρότητα

p. 90) 24 ρύσαις ύδρηλὴν] L gloss: θεραπεύσαις τὸν ὕδρωπα. For dropsy cf. Cap. XV p. 144 l. 2

p. 90) 24 ἐπεσσυμένην] L gloss: ἐπερχομένην

p. 90) 25 φαέων] L gloss: ὀφθαλμῶν

p. 90) 25 ἀμβλεῖαν] L gloss: ἀμβλυωπίαν

p. 90) 25 ἄφαρ] L gloss: ταχέως

p. 90) 25 λάμψειεν] L gloss: φωτίσειε

p. 90) 26 τῷ] L gloss: διὰ τοῦτο

- p. 90) 26 ἀλέγοις] L gloss: φροντισοῖς
- p. 92) 1 oἴη] L gloss: μόνη, but rough breathing on oǐη
- p. 92) 1 καὶ τετάνοιο] For tetanus cf. Cap. XV p. 144 l. 12
- p. 92) 1 τενόντων] L gloss: τῶν
- p. 92) 2 ήρε βυθοῦ] L gloss: ἐξέβαλε ἀπὸ τοῦ
- p. 92) 3 ώτρύνατο χώρην] L gloss: ἐπλάτυνε τόπον
- p. 92) 4 λοξὸς ἀναθλίβων] L gloss: ὁ ὑμὴν καὶ ἐπικείμενος
- p. 92) 5 φρικαλέην] L gloss: φρίκην ἐμποιῦσαν
- p. 92) 5 ἀνίην] L gloss: ὀδύνην
- p. 92) 6 δαμναμένοιο] L gloss: τοῦ ὀδυνωμένου
- p. 92) 7 ἄσχετα] L gloss on reading ἔσχετο: κωλυθείη
- p. 92) 8 όρμαίνη] L gloss of reading όρμην: ταῖς φυσικαῖς όρμαῖς
- p. 92) 8 κενεήν] L gloss: ἐπὶ τὴν ματαίαν

p. 92) 8 Kuθέρην] L gloss: Ἀφροδίτην διὰ την πολλὴν ἔντασιν. There is no equivalent claim relating to male sexual problems in Cap. XV; conversely Cap. XV deals with gynaecological problems which the poem does not.

- p. 92) 9 φῶτα] L gloss: τὸν ἄνδρα
- p. 92) 9 κατ' ἰξύος] L gloss: κατ' ὀσφύος
- p. 92) 9 ἐπείγοι] L gloss: κατὰσχοι
- p. 92) 11 μογερών στέρνων] L gloss: τών ἐπωδών ἤτοι τοὶς ἐμπυικοὶς
- p. 92) 11 ἀπολύσεται] L gloss: θεραπεύσεται

- p. 92) 11 ἕμπυον ἰλὺν] L gloss: τὴν ἑλκομένην
- p. 92) 12 πολλούς μέχρις ἐπ' ἠελίους] L gloss: ἐπὶ πολλὰς ἡμέρας
- p. 92) 13 άλθήσει] L gloss: θεραπεύει

p. 92) 13 λοιμόν] L gloss: τὸ δύσπνοον τὸ ἀπὸ μοχθηροῦ ἀέρος εἰσπνεόμενον For plague (λοιμὸς) cf. Cap. XVI p. 148 l. 14

- p. 92) 13 ἀηδέα] L gloss: ἀπηνῆ
- p. 92) 13 πάσαν ἐπ' ἡὼ] L gloss: ἀνὰ πάσαν ἡμέραν
- p. 92) 14 έκ τοίης παρθέμενος] L gloss: ἐκ τοιαύης διδοὺς
- p. 92) 15 λυσσώσαν] L gloss: λυσσώδη. For rabies cf. Cap. XVI p. 146. l. 1
- p. 92) 16 γαῦρος] L gloss: θαρρῶν
- p. 92) 16 ἐπ' ἀντιδότω] L gloss: λαβών αὐτὴν
- p. 92) 17 τῆς] L gloss: ἐκ ταύτης τῆς ἀντιδότου

p. 92) 17 Dosage: there appears to be an abrupt transition here from the list of diseases cured by theriac, to advice on dosage and time of administration in general. For the advice to vary the dose and the time of administration, cf. Cap. XVII p. 152 l. 12 where the weight of one Nile bean is also recommended, with two (not three as here) tablespoonfuls of water.

- p. 92) 17 τόν] L gloss: ὃν
- p. 92) 17 εὔσκιον] L gloss: ἄσκιον
- p. 92) 19 Νειλώου] L gloss: αἰγυπτίου
- p. 92) 19 ἄμμιγα] L gloss: ἀμιγὲς καθαρὸν
- p. 92) 20 κιρνάμενος] L gloss: βαλών
- p. 92) 21 πίνοιεν] L gloss: πίνειν δὲ χρὴ

p. 92) 21 κνέφας] L gloss: ἡ νὑξ

p. 92) 21 ἠοῦς] L gloss: τῆς ἡμέρας

p. 92) 22 For the advice sometimes to double the dose cf. Cap. XVII p. 152 l. 14 where the advice is given sometimes to take a dose the size of a Pontic walnut. Oribasius *Synopsis* 2.58.11 gives the weight of a Nile bean as 4 obols and of a Pontic walnut as 16 so the advice there is to take a quadruple dose, assuming Oribasius to be correct. nevertheless the advice intermittently to increase the dose suggests that Cap. XVII is influenced by the poem.

- p. 92) 22 διπλήν] L gloss: δὶς πίνειν
- p. 92) 22 ὀρνύμενοι] L gloss: προθυμούμενοι θαρροῦντες
- p. 92) 23 'Hoῦς] L gloss: ἡμέρας
- p. 92) 23 κεράσαιο] L gloss: δώσεις
- p. 92) 23 κακοῦ] L gloss: τοῦ
- p. 92) 24 ἀλγεινὸς] L gloss: δύσφορος
- p. 92) 24 ήέλιος] L gloss: ἡ ἡμέρα
- p. 92) 25 νυκτὶ] L gloss: καὶ ἔτι τὴν νύκτα
- p. 92) 25 όμῶς] L gloss: ὁμοίως δώσεις
- p. 92) 25 ἐπώδυνος] L gloss: δύσφορος
- p. 92) 25 ὄρφνη] L gloss: ἡ νύξ

p. 94) 1 κραντῆρι] L gloss on reading γναμπτῆρι: δδοῦσι. Schneider's κραντῆρι is justified by Nic. Th. 447. γναμπτῆρι (L) is a ἅπαξ.

- p. 94) 1 δαμείη] L gloss: δηχθείη
- p. 94) 2 μογερόν] L gloss: ἐπώδυνον

p. 94) 2 κυανοῦ] L gloss: μέλανος

p. 94) 3 ἐντύναιο] L gloss: κατασκεύαζε δίδου

p. 94) 3 κατ' ὀρφναίην] L gloss: ἑσπέραν

p. 94) 3 ήώ] L gloss: πρωινήν

p. 94) 4 δαμναμένοις] L gloss: τοῖς ἀσθενοῦσι

p. 94) 5 ἀυπνείοντας] L gloss on reading ἀεὶ πνείοντας: τοὺς ἀγρυπνοῦντας πρότερον

p. 94) 5 ἐπὶ κοῖτον] L gloss: πρὸς ὕπνον

p. 94) 5 έτοίμως] L gloss: προθύμως

p. 94) 6 γηθαλέους] L gloss: γηθομένους

p. 94) 7 Chartier chapter heading (see Introduction p. 62) Μέρος β'. τῆς Ἀνδρομάχου ποιημάτων τὴν τῆς ἀρτίσκων σύνθεσιν περιέχον ἐξ ἐχιδνῶν, καὶ σκίλλης, τόν τε σταθμὸν τῆς τὴν θηριακὴν ἐπεισδυόντων, καὶ τῆς συμμίξεως τὸν τρόπον, καὶ τέλος τὴν Ἀσκληπιοῦ ἐπίκλησιν.

p. 94) 7 The second part of the poem consists of a recipe for preparation of the drug in the logical order snake-catching, preparation of snake pastilles, preparation of drug incorporating snake pastilles and other ingredients. Cf. chapters XII–XIV where the order is: ingredients XII, making of perfume solids and snake-catching and preparation of snake pastilles XIII, combination of ingredients XIV.

p. 94) 7 κακήθεας] L gloss: τὰς κακοήθεις ἐχίδνας

p. 94) 7 ἐμπέραμος] L gloss: ἔμπειρος

p. 94) 7 φώς] L gloss: ἀνήρ

p. 94) 8 μάρπτων] L gloss: κατέχων κρατῶν

p. 94) 8 θοούς] L gloss: τὰς ταχέας

- p. 94) 9 For the time of year at which the vipers are caught cf. p. 132 l. 9 and n.
- p. 94) 9 τούς] L gloss: ούς
- p. 94) 9 χείματος] L gloss: χειμώνος
- p. 94) 9 γαίης] L gloss: τῆς γῆς
- p. 94) 10 στεινοὶ] L gloss: οἱ στενοὶ
- p. 94) 10 ένερθε] L gloss: κάτωθεν
- p. 94) 11 εἰαρινὴν] L gloss: τὴν τῶν ἀνθῶν πρώτην ἀναβλάστησιν
- p. 94) 12 διζόμενοι] L gloss: ζητοῦντες
- p. 94) 12 χλοεροῦ] L gloss: χλωροῦ
- p. 94) 13 τὸ] L gloss: ὃ
- p. 94) 13 τίθησιν] L gloss: ποιεῖ
- p. 94) 13 έρπηστήρσιν] L gloss: τοῖς ὄφισι
- p. 94) 13 όπωπὴν] L gloss: όρατικῆν δύναμιν
- p. 94) 14 πιαΐνον] L gloss: αὖξον τὸ μάραθρον
- p. 94) 14 δειλοῖς] L gloss: ταλαιπώροις
- p. 94) 14 βουπελάταις] L gloss: βουκόλοις
- p. 94) 15 αὐτῶν] L gloss: ὄφεων
- p. 94) 15 ἀπὸ κόρσας] L gloss: τὰς κεφαλὰς
- p. 94) 16 κενεὰς] L gloss: κενὰς
- p. 94) 16 έξερύοις] L gloss: έξαιρέσεις

- p. 94) 17 οὖλα] L gloss: ὀλέθρα
- p. 94) 18 λυγρόν] L gloss: χαλεπόν
- p. 94) 18 ύπ'] L gloss: ἐπὶ τῆν
- p. 94) 18 οὐραίην] L gloss: τῆς οὐρὰς
- p. 94) 19 τοὔνεκα] L gloss: διὰ τοῦτο
- p. 94) 19 oi] L gloss: αὐτῷ τῷ ὄφει
- p. 94) 19 κατ' αὐχένα] L gloss: τὸν
- p. 94) 20 ὄσσον πυγμαίης χειρός] L gloss: ὄσον τῶν δ' δακτύλων συνεπλαγμένον τὸ βάθος. For the instructions on preparation of the snakes cf. Cap. XIII p. 134 l. 3
- p. 94) 21 λοίγια] L gloss: ὀλέθρια
- p. 94) 21 σταλάουσι] L gloss: στάζουσι
- p. 94) 21 ἀπὸ] L gloss: πόρρω
- p. 94) 22 ἐκτὸς] L gloss: ἀποκόπτων
- p. 94) 22 ίλαρήν] L gloss: οὕτω γὰρ ποιῶν
- p. 94) 22 δέρξεται] L gloss: οὐ χαλεπῶς δέρξεται ἡμέραν
- p. 94) 23 τὰ] L gloss: ταῦτα
- p. 94) 23 κεραμηΐδι] L gloss: ὀστρακίνη
- p. 94) 24 ἐπιφλεγέτω] L gloss: ἑψαίτο
- p. 94) 25 έγχεύσας] L gloss: ἐμβαλών
- p. 94) 25 ἄρκιον] L gloss: ἀρκεῖ
- p. 96) 1 ήνίκα δὲ] L gloss: τὴ ἑψήσει

p. 96) 1 ἄκανθαι] L gloss: ἤτοι τῆς ῥάχεως τὰ ὀστέα

- p. 96) 2 οἰδήνη] L gloss: ἐξογκωθείη
- p. 96) 2 νῶτον] L gloss: ῥάχιν
- p. 96) 2 ἔχις] L gloss: ὁ ὄφις
- p. 96) 3 ἐκτὸς ἕλοι] L gloss: ἐκβάλοι ἀπὸ τοῦ πυρὸς ζείοντας
- p. 96) 4 ὄφρ' ἑκὰς] L gloss: πόρρω
- p. 96) 4 ἐντύναι] L gloss: κατασκευάζοις
- p. 96) 4 ἀπεχθομένας] L gloss: μισητὰς
- p. 96) 5 έρπηστῶν] L gloss: τῶν ὄφεων
- p. 96) 5 ἰόεντας] L gloss: τας ἰουμενὰς
- p. 96) 6 πάμπαν] L gloss: παντελώς

p. 96) 6 ὑπ' εὐδίφου] L gloss on reading εὐδίφρου: ἐκκρεμοὺς. None of the readings or conjectures make a great amount of sense, and only L εὐδίφρου is attested as a word by LSJ. T's εὐδίφου could plausibly be derived from διφάω, to search well.

- p. 96) 6 έλεγχομένας] L gloss: αἱρημένας
- p. 96) γ αὐαλέου] L gloss: ξηροῦ
- p. 96) 7 εὐεργέος] L gloss: καλῶς ἐργασμένου

p. 96) 7 ἄρτου] Bread: cf. Cap. XIII p. 134 l. 19: ἄρτου ώς μάλιστα τοῦ καθαρωτάτου καὶ ἀπὸ σεμιδάλεως τῆς καθαρωτάτης γενομένου μίσγε τὸ σύμμετρον πρὸς τὴν ἀνάπλασιν, ὥσπερ καὶ ὁ Ἀνδρόμαχος βούλεται. ὁ γὰρ Μάγνος, καὶ ὁ Δαμοκράτης καὶ μέτρον τὶ ὡρισμένον αὐτοῖς μίγνυσθαι θέλουσιν· It is clear from this, and in general, that the author of *Ther.Pis* is not working solely from the Andromachus poem in Cap. XII–XIV but also comparing recipes from other sources.

p. 96) 8 τερσύναι] L gloss: ξηράναι

p. 96) 8 τροχούς] L gloss: τροχίσκους

p. 96) 9 μίγδα] L gloss: δ' ὅτε μιν δ' ἐπὶ τὸ αὐτὸ

p. 96) 9 όλμου] L gloss: στρογγύλου ἰγδίου

p. 96) 10 κάτθες] L gloss: κατάθες

p. 96) 10 δαπέδου] L gloss: τόπου

p. 96) 11 ἄνδιχα] L gloss on reading ἄμμιγα: ἀμιγὴ I have adopted Schneider's conjecture in preference to the reading of the mss. τριχώδεσιν ἄμμιγα φλοιοῖς, with its hairy or hair-like bark, on the basis of the stipulation in Ant. I:XIV 50 that the squill should be peeled: περιελών δὲ τὸ φλοιῶδες, εἶτα περιπλάσας τὶ πυρῶν νέων καλλίστων ὡς ὅτι μάλιστα, μετὰ ταῦτα ὅπτησον ἐν θερμῇ τέφρα πολλῃ

- p. 96) 12 σταιτί] L gloss: ἀλεύρω
- p. 96) 12 θάλπε] L gloss: τίθει
- p. 96) 12 φλογιής] L gloss: φλογός
- p. 96) 13 ἀπταλέην] L gloss: ἀπτην
- p. 96) 13 οὐ σκληρὴν] L gloss: μαλακὴν
- p. 96) 13 κόρσην] L gloss: κεφαλήν
- p. 96) 14 έντύναις] L gloss on reading έντύναιο: ποιήσας
- p. 96) 14 σποδιής] L gloss: τής φλογός
- p. 96) 14 δαιομένης] L gloss: καιομένης
- p. 96) 15 καί ό' ὅτε] L gloss: δὴ
- p. 96) 15 θαλπομένη $\langle \nu \rangle$ ] L gloss on reading θαλπομένη: θερμαινομένη

p. 96) 15 ἡήξῃ σέλας ἔκτοθι πυρσοῦ] L gloss on reading ῥῆξαι: ἀποβάλε τὴν οἰκείαν δυνάμιν ἒκ τοῦ πυρὸς

p. 96) 16 κάτθεο] L gloss: κατάθου

p. 96) 17 ὄλμοις] L gloss: ἰγδίοις

p. 96) 17 δοιώ] L gloss: μερίδας

p. 96) 18 συνδονέων] L gloss: ταράσσων

p. 96) 18 μυχόθεν] L gloss: κάτωθεν

p. 96) 19 αἴνυσο] L gloss: λάμβανε

p. 96) 19 δινήεντας] L gloss: στρογγύλους

p. 96) 20 τοὺς δ' ἑκὰς ἠελίου ψύχεο τερσομένους L gloss: τοὺτους πόρρω τοῦ ἡλίου ψύχου ξηραινομένους

p. 96) 21 τῶν δ' ἤτοι δραχμὰς μὲν ὑπὸ πλάστιγγος ἀφέλκοις L gloss: τοὑτων δὲ τὴν ἑνδεκάδα ἤτοι πεντήκοντα προσθές

The recipe for Galene begins here: cf. Cap. XII p. 126 l. 25. Except as noted here the recipe is identical to that in Cap. XII with only variations in the order of the ingredients and some failures to specify quantities.

p. 96) 22 δοιὰς, τὴν πέμπτην παρθέμενος δεκάδα] L gloss: τουτέστιν ἀπὸ τῶν ν' δραχμῶν ἀφέλοις β' ὥστε μειναι μη': i.e, 50–52 = 48. Cf. Cap. XII p. 140 l. 5

p. 96) 23 ήμισυ θηρείοιο] L gloss: τῶν δραχμων ἤτοι κδ'

p. 96) 23 τροχοειδέος ἄρτου] L gloss: ἀπὸ τῶν σαρκῶν των ἐχιδνων

p. 96) 24 δολιχόν] L gloss: μακροπέπερι. Cf. Cap. XII πεπέρεως μακροῦ δραχμὰς κδ'. This is the only instance in TLG of πέπερι qualified by δολιχόν, presumably for the sake of the metre.

p. 96) 24 τόσσον] L gloss: τοσοῦτον

p. 96) 24 πέπερι] L gloss: κδ'

p. 96) 25 ἀποῦ] L gloss: ἀπὸ

p. 96) 25 αὕτως] L gloss: ὁμοιῶς

p. 96) 26 μάγματος ήδυχρόου] see p. 130 l. 15 and n. for the recipe for this substance. This is the earliest instance of the expression in TLG.

p. 96) 26 τόσσον] L gloss: τὸ ἶσον

p. 98) 1 ἰσάζοις] L gloss: ἐμβάλοις

p. 98) 2 'Ιλλυρίην] L gloss: 'Ιλλυρίκην

p. 98) 3 κυανέης] L gloss: μελαίνης

p. 98) 3 μελιπτόρθου] L gloss: κλωνός

p. 98) 4 βουνιάδος] L gloss: γογγυλίδος

p. 98) 5 σκόρδειον] L gloss: σκόροδον

p. 98) 5 ἀπὸν] L gloss: τῆς Συριακῆς βαλσάμου. The balsam is not characterised as Syrian in Cap. XII.

p. 98) 6 αἰνύμενος] L gloss: ἐμβαλλόμενος

p. 98) 7 τοῖς] L gloss: ἐπὶ τούτοις

p. 98) 7 ἰσάζεο] L gloss: ἐμβάλοις

p. 98) 8 ίσοβαρές] L gloss: ἰσοσταθμόν

p. 98) 8 θέμεναι] L gloss: θεῖναι

p. 98) 10 θρέψατο] L gloss: ἐγέννησεν

p. 98) 10 Κωρύχιον] ἀντρον: a cave on Mt. Parnassus (LSJ s.v. Κωρύχιος). Notable for saffron: see e.g. Horace *Sermones* 2.4.68. The crocus is not specified as Corycian in Cap. XII.

p. 98) 11 Ἰνδήν] L gloss: Ἰνδικήν. Cap. XII has στάχυος νάρδου, not identified as Indian.

- p. 98) 11 εὐώδεα] L gloss: χνοώδη ἢ ἀχνῶδεα
- p. 98) 12 σχοΐνον] L gloss: σχοινάνθης
- p. 98) 12 νομάδων] L gloss: τε
- p. 98) 13 ἀγλαϊὴν] L gloss: καθαρὴν
- p. 98) 14 κυανέω] L gloss: μέλανι
- p. 98) 14 κατθέμενος] L gloss: σταθμίσας
- p. 98) 15 χλοερού] L gloss: χλώρου
- p. 98) 15 πρασίοιο] L gloss: πράσου
- p. 98) 16 ἀπάνευθε] L gloss: χωρὶς
- p. 98) 16 μένοι] L gloss: ἔσεται
- p. 98) 18 δριμύ τε] L gloss: οὐδὲ τὸ

p. 98) 18 δάκρυ Λιβυστιάδος] L gloss: δάκρυον τῆς ἀπὸ Λιβύης. Cap. XII has simply τερμινθίνης without the reference to "Libyan tears". For δάκρυ = drop of resin cf. Nic. *Alexipharmaca* 301.

p. 98) 19 θερμόν ζιγγίβερι] L gloss on reading θιγγίβερι θερμόν: καὶ τὸ

p. 98) 19 εὔκλωνον] L gloss: τὸ καλοὺς κλῶνας ἔχον

p. 98) 19 πενταπέτηλον] L gloss: πεντάφυλλον

p. 98) 20 τὰς δοιὰς δραχμών πάντα φέροι τριάδας] L gloss: ταύτας τὰς βοτάνας ἀνὰ ἒξ ἐμβαλοις δραχμὰς

p. 98) 21 πίσυρας] L gloss: δ'

p. 98) 21 όλκὰς βαρυέσσας] L gloss: τῷ βάρει

p. 98) 22 χαμαιζήλου] L gloss: χαμαιπίτυος

p. 98) 23 στύρακος] L gloss: τοῦ γομφίτου

p. 98) 23 βοτρυόεντος] L gloss: βότρυος

p. 98) 24 Γαλάτης ἣν ἐκόμισσεν ἀνὴρ] L gloss: γαλακτικῆς. Cap. XII has νάρδου Κελτικῆς; LSJ s.v. Γαλάται states that Γαλάται is equivalent to Κελτοί citing Polybius 1.6.2.

p. 98) 25 Λημνιάδος] L gloss: τῆς Λημνίας γῆς καὶ τὸ ἀπὸ τοῦ Πόντου. Pontic origin is not specified in Cap. XII.

p. 98) 26 Κρηταίης σπέρμα] L gloss: τὸ ἀπὸ τῆς Κρήτης. Cretan origin is not spedcified in Cap. XII.

p. 98) 26 χαμαιδρυάδος] L gloss: της χαμαίδρυος

p. 98) 27 ἀπταλέην] L gloss: ἀπτὴν

p. 98) 28 μίσγεσθαι] L gloss: μίξαι

p. 98) 28 δίχα] L gloss: χωρὶς

p. 100) 2 διηνάμενος] L gloss: βρέχων

p. 100) 3 'Ιδαΐον] L gloss on reading ἰερὸν: τὸ ἀπὸ τῆς "Ιδης ἢ 'Ιδαῖον. Cretan origin is not specified in Cap. XII.

p. 100) 4 ήδ' ἄκορον] L gloss on reading καὶ ψαφαρὸν: τὸ ὑπόχαυνον

p. 100) 4 στήσεις] L gloss: σταθμίσας

p. 100) 4 παρθέμενος] L gloss: ἔμβαλε

p. 100) 5 μίσγοιο] L gloss: μίξαις

p. 100) 5 κυανωπόν] L gloss: μελαίνης

- p. 100) 6 ἰσοβαρὲς] L gloss: ἰσόσταθμον
- p. 100) 7 τόσσον] L gloss: τοσοῦτον
- p. 100) 7 ἄμμι] L gloss: ἄμμεως
- p. 100) 8 ἄγοι] L gloss: ἐμβάλοις
- p. 100) 8 τοσσατίην] L gloss: τοσοῦτον
- p. 100) 9 δοιάς δ' εἰσάξεις] L gloss δραχμάς ἐμβάλεις

p. 100) 9 τά περ "Ιστριος ἔκβαλε κάστωρ] L gloss ἀπὸ τῶν ὄρχεων τοῦ κάστορος τοῦ ἐν τῷ "Ιστρῳ γενομένου. Istrian origin is not specified in Cap. XII.

- p. 100) 11 αὐαλέην] L gloss ξηραν
- p. 100) 12 κοίταις] L gloss φωλεοῖς
- p. 100) 12 δαιομένην] L gloss καπνιζομένων
- p. 100) 14 ἰσόμορον] L gloss ἰσόμοιρον
- p. 100) 15 θυίη] L gloss λιθίνω λάρνακι
- p. 100) 15 πολι $\hat{\mu}$ ] L gloss σύν παλαι $\hat{q}$
- p. 100) 15 μαλθάσσεο] L gloss on reading μαλθάξεο: μαλάξεο
- p. 100) 16 όσσα περ ύγροτέροις δάκρυσιν ἐμφέρεται] L gloss ὄσα ἐστιν ὀποι δένδρων
- p. 100) 17 τὰ δέ κεν ξυλοειδέα πάντα] L gloss & ὄσα ἐστὶν χυλώδη
- p. 100) 18 Άκταίω] L gloss Άττικώ.
- p. 100) 18 συγκεράσας] L gloss ἀναμίξας

p. 100) 19 ίλήκοις ὃς τήνδε μάκαρ τεκτήναο Παίων] L gloss ίλεως ἥμιν ἔλθοις τὴν ἀντίδοτον κατασκευάσαις ὦ Θεραπευτὰ

Having begun as a prayer addressed to Nero the poem ends with a prayer to

Paean. For the list of shrines where the god may currently be cf. *Orphic Hymn* 49.4–6

p. 100) 20 Τρικκαΐοι] L gloss οἱ τῆς Τρίκης: i.e. Trikke in Thessalonia.

p. 100) 20 δαΐμον] L gloss θεὲ

p. 100) 21 Βουρίνα] L gloss on reading Βουρίννα: πόλις: Bourina in Cos, close to the Asclepeion: Zanker (1980).

p. 100) 21 ἀγχιάλη] L gloss ἡ περιεχομένη θαλασση

p. 100) 22 ίλήκοις] L gloss ίλεως ημιν έλθοις

p. 100) 22 αἰὲν] L gloss ἀεὶ

p. 100) 22 ἄνακτι] L gloss τῷ βασιλεῖ

p. 100) 23 τεήν πανάκειαν] L gloss τήν σήν θεραπείαν

p. 100) 23 δδ' εὐαγεέσσι θυηλαῖς] L gloss οῦτος ἐν ἀψόγοις θυσίαις

p. 100) 24 ίλάσεται] L gloss ἐξίἰλάσεται

p. 102) 1 Chartier chapter heading (see Introduction p. 62): Διὰ τὶ ὁ Ἀνδρόμαχος τὴν ἔχιδναν μαλλον ἢ ἄλλον τινὰ ὄφιν τῇ θηριακῇ ἐπέμιξε; καὶ περὶ Κλεοπάτρας θανάτου ἀκριβὴς ἱστορία.

p. 102) 1 This chapter is crucial to the debate on authorship first because of the different beliefs about the δίψας here and elsewhere in Galen, and secondly because of the close parallel between the passage on the δρύϊνος ὄφις and a passage of Sextus Julianus Africanus *Cesti*; see introduction.

p. 102) 1 The expression oùx dqu@c occurs in Galen only here and at p. 108. l. 2; the only other occurrence of dqu@c in the Galenic corpus is again in this treatise p. 84. l. 12.

p. 102) 5 τὴν φθοροποιὸν δύναμιν] : the word φθοροποιὸς occurs five times in this treatise, in each case qualifying δύναμιν, and four times elsewhere in the galenic corpus.

p. 102) 10–14 ό δὲ δρύϊνος ὄφις ἐν ταῖς τῶν δρυῶν ῥίζαις τὸν βίον ποιούμενος οὕτως πονηρός ἐστι πρὸς τὸ διαφθεῖραι κακῶς, ὥστε εἴ τις, φασὶν, αὐτοῦ ἐπιβαίη, ἐκδέρεσθαι αὐτοῦ τοὺς πόδας, καὶ οἴδημα πολὺ γίνεσθαι καθ' ὅλων τῶν σκελῶν. καὶ ἔτι τὸ θαυμασιώτερόν φασιν, ὅτι καὶ εἰ θεραπεύειν τις ἐθέλοι, τούτου τὰς χεῖρας ἐκδέρεσθαι.]

Cf. Sextus Julius Africanus Cesti 3.31.1 = Wallraff D56: Ό δὲ δρυΐνης ὄφις ἐν ταῖς τῶν δρυῶν ῥίζαις τὸν βίον ποιούμενος καὶ πρὸς ἄλλοις δένδροις οὐκ ἀλινδούμενος (οὐκ ἀλινδούμενος conieci; καλινδούμενος codd. edd.) οὕτω καὶ πονηρός ἐστιν πρὸς τὸ διαφθεῖραι κακῶς, ὡς, εἴ τις αὐτῷ ἐπιβαίη, τοὺς πόδας ἀποδέρεσθαι καὶ οἰδήματα καθ' ὅλων τῶν σκελῶν γίνεσθαι. Καὶ ἔτι θαυμασιώτερον· εἰ καὶ θεραπεύειν τις αὐτοὺς ἐθέλει, καὶ τούτου τὰς χεῖρας ἀποδέρεσθαι. For discussion see introduction.

p. 102) 23 ώσπερ τότε λογικόν γιγνόμενον τὸ θηρίον] The text is unsatisfactory in that it is difficult to see the force of τότε. Reading ἐτυμολογικόν would make sense given the proximity to ἐμπτύει cf. Clemens Alexandrinus *Paed*. Book 2 chapter 8 subchapter 71 section 3 line 3–4: Ὁ γοῦν κιττὸς ἐμψύχει, ἡ δὲ καρύα πνεῦμα ἀφίησιν καρωτικόν, ὡς ἐμφαίνει καὶ τοὔνομα ἐτυμολογούμενον. But there is no authority for the locution ἐτυμολογικὸν γιγνόμενον.

p. 104) 1 τριπλοῦν γάρ ἐστι τὸ εἶδος τῶν ἀσπίδων] This tripartite division is found only in Philumenus *de venenatis animalibus eorumque remediis* 16. 1–2, Aëtius *Iatricorum* XIII 22.1–9 and here, and in later sources deriving from Philumenus or from this passage. Neither the χερσαία nor the χελιδονία is found elsewhere other than in these passages.

p. 104) 5 καὶ δὴ καὶ διὰ σπουδῆς φυλάττειν: the transmitted text καὶ ζῆν καὶ makes little sense and adds nothing to ζῶσαν λαβεῖν.

p. 104) 7 ἐξ ἀνθρώπων γενέσθαι] to leave humanity, i.e. to die. Cf. Galen de Lib. Prop. XIX 18.15–16 μεταστάντος δ' ἐξ ἀνθρώπων τοῦ Λουκίου, Ant. I: XIV 24.18 ἐπεὶ δ' ἐκεῖνος (sc. Marcus Aurelius) ἐξ ἀνθρώπων ἀπῆλθεν Adv. Typ. Scr. VII 478 11–12 μεθεστήκει μὲν ἐξ ἀνθρώπων ἐναγχος Ἀντωνῖνος ὁ μετ' Ἀδριανὸν γενόμενος αὐτοκράτωρ; Philostratus Vita Apollonii 8 31.6 τοῦ δὲ Ἀπολλωνίου ἐξ ἀνθρώπων μὲν ἤδη ὄντος; Pausanias 6 11 6.1 ὡς δὲ ἀπῆλθεν ἐξ ἀνθρώπων. It is noteworthy that Galen, unlike Philostratus and Pausanias, in all cases where he uses the expression uses it of reigning monarchs, consistent with the use here in Ther.Pis.

p. 104) 10 Νάειρα καὶ Χαρμιόνη: for the names and the respective duties of hair care and manicure cf. pseudo Plutarch *De proverbiis Alexandrinorum* Fr. 45 l. 1: Εἰρὰς καὶ Χάρμιον: τούτων ἡ μὲν τῶν τριχῶν ἐπιμέλειαν ἐποιεῖτο Κλεοπάτρας τῆς βασιλίσσης, ή δὲ τῶν ὀνύχων· παρέμειναν δ' αὐτῆ καὶ μέχρι θανάτου καὶ ἀποθανοῦσαι πολυτελοῦς ταφῆς ἠξιώθησαν καὶ τιμῆς ἔτυχον and Zenobius *Epitome collectionum Lucilli Tarrhaei et Didymi* Centuria 5 section 24 line 2 which gives the names as Νάηρα καὶ Χαρμιόνη, but otherwise is identical to the pseudo-Plutarch passage.

Our main source for the death of Cleopatra is Plutarch *Life of Antony* 85–86. Plutarch states that there can be no certainty as to how Cleopatra died because of a lack of surviving witnesses but canvasses the possibilities that the asp is brought in in a basket of figs, or kept in a water-jar, and applied by Cleopatra to her arm, or that the poison was in a hair pin concealed in her hair. (86.1–4). By some accounts two small puncture marks were seen on her arm— $\check{\epsilon}$ viol d $\hat{\epsilon}$  xal tor braxíova týc Kleopatrac dordýval dúo vuymàc  $\check{\epsilon}$ xovta leptac al dmudpác. (86.5 3–5).

p. 104) 20 Euripides Hecuba 568-570

ή δὲ καὶ θνήισκουσ' ὄμως πολλὴν πρόνοιαν εἶχεν εὐσχήμων πεσεῖν, κρύπτουσ' ἂ κρύπτειν ὄμματ' ἀρσένων χρεών.

The text reproduces Euripides almost verbatim; εὐσχημόνως for εὐσχήμων spoils the metre in the second line. Polyxena is killed by Pyrrhus in the play; the point of comparison is only that she, like Cleopatra, exercises forethought as to how her death will appear to others. Rota, the translator of the Giunta edition is so keen to forestall any misunderstanding on this point that he tacitly inserts a gloss into the text: "Id quod de Polyxena tragicus poeta scribit: Nam etiam si a Pyrrho iugularetur, tamen mentem adhibuit, ut cum decore caderet." The versions of the story in Philostratus Vita Apollonii 4 16.54-59 (told by the ghost of Achilles to Apollonius) and Philostratus Heroicus 737.32-738.8 in which Polyxena commits suicide are irrelevant because in both versions she uses a sword and there is therefore no point of similarity. For quotations of Euripides by Galen see generally PHP book 4, Protr. section 10. For δ τραγικός ποιητής referring to Euripides Diff. Puls. III: VIII 636.3-4. This couplet is also quoted by Galen Hipp. Prog. XVIIIb 8.1–2 ή δὲ καὶ θνήσκους' ὄμως πολλὴν πρόνοιαν εἶχεν εὐσχήμως  $\pi \epsilon \sigma \epsilon \hat{v}$ . Here the text is the same as that transmitted in the Euripides tradition and scans properly (although one late ms. reads εὐσχημόνως corrected from εὐσχημόνος—see CMG V 9,2 p. 201). In this context it is used to illustrate the' use of the word  $\pi \rho \delta \nu o \alpha$  according to the usual usage of the Greeks— $\tau \delta \nu o \alpha$ νὸν ἔθος τῶν Ἐλλήνων—in contrast to Hippocrates' use of the word. The couplet also turns up in other contexts possibly contemporary with Galen: in [?pseudo] Lucian Demosthenis encomium 47.1-7 a fictional Demosthenes quotes these

words to an emissary of Antipater as justifying his choice of seemly death over unseemly life (missing the point that Polyxena is not choosing between life and death): ἀλλὰ δίκαιον γάρ, ἔφη, σοὶ τῶν τραγῳδιῶν μνημονεύειν, οὖ σεμνὸν τὸ λεχθὲν ἡ δὲ καὶ θνήσκουσ' ὅμως πολλὴν πρόνοιαν εἶχεν εὐσχήμως πεσεῖν, κόρη καὶ ταῦτα· Δημοσθένης δὲ εὐσχήμονος θανάτου βίον προκρινεῖ ἀσχήμονα τῶν Ξενοκράτους καὶ Πλάτωνος ὑπὲρ ἀθανασίας λόγων ἐκλαθόμενος; pseudo Hermogenes of Tarsus Περὶ εὑρέσεως 4 12. 49–56 quotes these two and the following line κρύπτουσ', ἂ κρύπτειν ὄμματ' ἀρσένων χρεών—as an example of a lapse from dignity into bad taste. Hermogenes' dates are c. 160–225; Περὶ εὑρέσεως is probably misattributed to him but may actually be earlier (Davis 2005, 197). So this tag is widely used outside Galen for a wide variety of purposes and no strong conclusions can be drawn on authenticity from the coincidence that it is used in *Ther.Pis*.

p. 106) 3–4 καὶ πολλάκις γὰρ ἐθεασάμην ἐγὼ ἐν τῷ μεγάλῃ Ἀλεξανδρεία] Galen frequently refers to his time in Alexandria (usually referred to simply as ἡ Ἀλεξανδρεία but ἡ μεγάλῃ Ἀλεξανδρεία at San. Tu. VI: VI 405.14, Alim.Fac. II: VI 612.10). His reminiscences usually concern plants and foodstuffs he has encountered there (e.g. Alim.Fac. I: VI 486.10, Alim.Fac. II: VI 616.12, 617.8), treatments he has witnessed or effected there (e.g. SMT IX: XII 177.6–11). The closest parallel to this passage is AA I: II 220.14–17 where he says that Alexandria is the easiest place to see for oneself the bones of the human skeleton.

p. 106) 10 Chartier chapter heading (see Introduction p. 62): Τί δή ποτε τη̂ θηριακη̂ όλόκληρος ἡ ἔχιδνα οὐκ ἐπιτίθεται· πολλάς τε ἐκ τῶν ζώων ἡμᾶς λαμβάνειν τὰς θεραπείας.

p. 106) 13–14 διὰ ταῦτ' ἀποκόπτειν αὐτὰς πειρώμεθα] The instruction to cut off and discard heads and tails is given in the verse recipe of Damocrates *Ant.* I: XIV 93.18–94.2:

Τῶν μὲν κεφαλῶν ἀπόκοψον, ὡς τρεῖς δακτύλους, Μικρῷ τε πλείους τῶν ἀπὸ τῆς οὐρᾶς μερῶν, Πρῶτον κεφαλὰς μὲν, εἶτα τὰς οὐρὰς τότε.

p. 106) 15–16 ώσπερ δỳ καὶ ἐν τοῖς παραστάταις τὸ σπέρμα καὶ ἐν τοῖς μαζοῖς τὸ γάλα μεταβαλλόμενον γίνεται.] This accords with Galen's doctrine as stated elsewhere. For breasts and milk cf. *Ven. Sect. Er.* XI 164.10–12: καὶ ἡ μετὰ τὴν κύησιν δὲ τοῦ γάλακτος ἐν μαστοῖς γένεσις οὐ σμικρὰ κένωσις οὐδ' αὐτὴ τῷ πλήθει. For semen and testicles cf. *Sem.* I: IV 583.12–13: ὥστε οἱ ὄρχεις ἐργάζονται σπέρμα. The argument

in *Sem.*, that semen is made both by the testicles and by the neighbouring veins and arteries, is not inconsistent with the statement here that it is made by the testicles.

The relevance of the comparison between the viper's head and tail on the one hand and the testes and breasts on the other is doubtful. The obvious reason for cutting off the head and that given by Galen in *SMT* XI: XII 317.8 is  $\delta i \dot{\alpha} \ \tau \dot{\circ} \ \tau \dot{\circ} \ \tau \dot{\phi} \ \sigma \tau \dot{\circ} \mu \alpha \tau \iota \ \pi \epsilon \rho \epsilon \chi \dot{\circ} \mu \epsilon \nu \sigma \iota \dot{\circ} \nu$ —because of the poison contained in the mouth. What is the relevance however of the question where the poison is created as opposed to where it is stored? Presumably the suggestion is not that the creation of poison continues after death unless the head is removed which would be a startling belief and not one we know Galen or anyone else to have held. Presumably there is simply ellipsis of the fact that bodily fluids such as milk and semen, and poison, are stored where they are manufactured until needed.

p. 106) 16 ή δὲ ἔχιδνα] Having been told in Chapter VIII that the ἔχιδνα is used for theriac because it is so much less deadly than other snakes we now learn that it is more deadly than any other. The argument is incoherent as well as being at odds with Chapter VIII. ή ... ἔχιδνα, usually any viper irrespective of sex, here means the female. She has a more deadly head than any other animal because she uses it to bite the head off the male after he has fertilised her by ejaculating semen in her mouth. The belief that vipers reproduce in this way apparently arises from a misconstrual of Nicander Theriaca 130-131 whereby κυνόδοντι is wrongly taken to govern θορνυμένου rather than ἀπέκοψεν—"C' est p.-ê. à cause de la f.l.  $\theta \circ \lambda \epsilon \rho \hat{\omega}$  que le *Physiologus* (Sbordone 34, 36, 241 s.) et Michel Glycas [Annales 108.7-14] répétant le contresens ap. Galen Pis. 238.14 s. ont construit κυνόδοντι avec θορνυμένου (au lieu de ἀπέκοψεν) et compris que l'accouplement se faisait par la bouche, un non-sens qu'on ne peut imputer à N[icandre]" Jacques (2002) ad loc. Snakes in fact copulate as follows: both sexes have a vent called the cloaca towards the tail end. The male snake has a pair of sex organs, the hemipenes, within the cloaca which he extrudes and inserts into the female cloaca. It is not clear whether the author of *Ther.Pis.* believes that copulation takes place female-mouth-to-male-cloaca or mouth-to-mouth. The latter view makes the mechanics of the operation easier to understand—it is reasonable to suppose that if the female genitalia have been relocated to the head so have the male. Glycas supposes that the copulation is mouth to mouth: ή θήλεια ἔχις διὰ τοῦ στόματος αὑτῆς δεχομένη τὴν κεφαλὴν τοῦ ἄρρενος καὶ οὕτω συνευναζομένη ἀναιρεῖ αὐτόν (Annales 108.9–11). Rota's translation has the male voluntarily inserting his head into the female's mouth but is ambiguous whether this is the act of copulation or a sequel to it. The Arabic test like the

Greek says that the male injects semen into the female's mouth but is silent as to the organ used by the male. The Greek description of the act as a  $\pi \circ \nu \eta \rho \alpha$  $\sigma \circ \mu \pi \lambda \circ \kappa \eta$  may suggest mouth-to-cloaca copulation or may refer to the whole episode including the killing of the male.

In any event the use by the female of her head to bite the head off the male has no visible bearing on the poison content of her head which is what the digression is meant to illustrate. The question can reasonably be asked: if the female viper's poisonous nature can be circumvented by cutting her head off why does the same not apply to the other snakes in Chapter VIII which we cannot use at all to make theriac?

p. 106) 17 τοῦτο τὸ ζωὸν] Deleted by Q<sup>2</sup> but restored by me because it is needed to imply ζώων after τῶν ἄλλων ἀπάντων. It is however very arguable that the deletion should stand on the basis that ὄφεων, ζώων vel sim. is easily understood after ἀπάντων without these words.

p. 108) 2 καὶ ἔστι τὰ ἔπη ταῦτα·] Nicander *Theriaca* 128–134. See Jacques (2002) for the most recent edition of the text.

p. 108) 10–11 Τὰς δὲ οὐρὰς καὶ αὐτὰ ἀφαιροῦμεν τὰ ἔσχατα τοῦ σώματος, ὥσπερ οὐρᾶς ὄντα μέρη καὶ, ὡς οἶμαι, τὸ ῥυπαρώτερον τῆς οὐσίας ἕλκοντα μᾶλλον,] Compare SMT XI: XII 317.4–17:

έπει δ' ἔθος ἡμῖν ἐστιν, ὅταν τοὺς καλουμένους ἀρτίσκους θηριακοὺς σκευάζωμεν, ἀφαιρεῖν οὐ μόνον τὴν κεφαλὴν αὐτῶν, ἀλλὰ καὶ τὴν οὐρὰν, ἐνενόησα πολλάκις εὐλόγως ἴσως μὲν τὴν κεφαλὴν ὅλην, διὰ τὸν ἐν τῷ στόματι περιεχόμενον ἰὸν, ἀλόγως δὲ τὴν οὐρὰν ἀφαιρεῖσθαι. οὐδὲ γὰρ τοῦτ' ἔστιν εἰπεῖν, ὅτι διὰ τὰ περιττώματα τῆς τροφῆς τά θ' ὑγρὰ καὶ τὰ ξηρὰ πρακτέον οὕτως ἐστίν. ἀποκτείναντες γὰρ αὐτὰς, εἶτ' ἐκδείραντές τε καὶ ἀναπτύξαντες, ἐξαιροῦμέν τε καὶ ἀπορρίπτομεν ἅπαντα τὰ ἔνδον, ὡς μόνην καταλείπεσθαι τὴν τῶν σαρκῶν οὐσίαν ἅμα ταῖς διαπεφυκυίαις αὐτῶν ἀρτηρίαις τε καὶ φλεψὶν, ἐλάχιστον ἐχούσαις ὄγκον ὡς πρὸς τὴν ὅλην σάρκα, καὶ μηδὲ φαινόμενον, ἐὰν μὴ πάνυ τις ἐπιμελῶς κατασκέψηται.

Since it is our custom whenever we make so-called theriac pastilles to remove not only their (sc. the vipers') heads but also the tails, I have often thought that while it is perhaps reasonable to remove the whole head because of the poison contained in the mouth, it is irrational to remove the tail. It cannot be said that this needs to be done because of the waste products of food both liquid and solid, because after killing them we skin them and cut them open and remove and discard all the innards so that all that is left is the flesh itself with the arteries and veins which grow through it and which are of minimal bulk compared to the flesh as a whole, and not even visible except on very careful inspection.

Compare also Ant. I: XIV 45.15-18:

ἀποτέμνειν δὲ τάς τε κεφαλὰς καὶ τὰς οὐρὰς αὐτῶν. πρὸς γὰρ τῷ δοκεῖν ἰωδέστερα ταῦτ' εἶναι τὰ μόρια καὶ τὸ σκληροῖς, καὶ ὀλιγοσάρκοις ὑπάρχειν αὐτοῖς πρόσεστιν.

Cut off their heads and tails since these parts tend to be greenish and bony and thinly fleshed.

On the face of it the texts are addressing the same question and arriving at diametrically opposed answers. The SMT passage fairly states and persuasively rebuts the argument of *Ther.Pis*. It is arguable that in using the  $\Im \sigma \pi \varepsilon \rho$  with participle construction and the phrase ώς οἶμαι the author of Ther.Pis. implies that he is speculating about the motivation of others without thereby endorsing it, but it is not typical of Galen to state a position with which he disagrees without also stating his own opinion. The point about the weight of the tail is also difficult. The tail has increased weight because of musculature developed through exercise just as a fish's tail does-and this is what makes the fish's tail more nourishing. We know from later in Ther.Pis. p. 132. l. 17 ff. that vipers should be caught in summer when they have been out in the open air and had lots to eat after their hibernation, which suggests that the increase in tail weight ought to make it more rather than less desirable. On Antidotes recommends rejecting the tail because it is thin and bony, *Ther.Pis.* because it is (a) dirty and (b) fat and fleshy. SMT rejects (a) and has nothing to say about (b). cf. also MMG II: XI 143.15–144.2 χρή δὲ ἐσθίειν αὐτὰς (sc. τὰς ἐχίδνας) οὕτω σκευάζοντας ὡς τοὺς θηριοτρόφους καὶ ἀσπιδοτρόφους Μάρσους ἐθεάσω, πρῶτον μὲν ἀποκοπτομένης τῆς οὐρᾶς καὶ τῆς κεφαλῆς ἄχρι δακτύλων τεττάρων, εἶτα τῶν ἔνδον ἁπάντων ἀφαιρεθέντων καὶ τοῦ δέρματος δηλονότι, εἶθ' ὕδατι τοῦ σώματος αὐτῶν περιπλυθέντος.

p. 108) 17–18 ἐνίοις γοῦν βοηθοῦσιν αἰ κεφαλαὶ τῶν μυῶν, καυθεῖσαι γὰρ καὶ μετὰ μέλιτος χριόμεναι, τὰς ἀλωπεκίας ἰἀσθαι δύνανται.] cf. *Comp. Med. Loc.* I: XII 404.10–11 where μυῶν κεφαλὰς συναπόθλα ἀνατρίβων—grind up the heads of mice—is given on the authority of Cleopatra's work on cosmetics as a cure for baldness.

p. 108) 18–19 καὶ τοῦ ἰκτίνου τὴν κεφαλὴν, φασὶν] cf. *Cyranides* 3.19 Ἰκτῖνος πτηνόν ἐστιν ἱερόν. τούτου ἡ κεφαλὴ ξηρανθεῖσα ἄνευ τῶν πτερῶν καὶ λειωθεῖσα καὶ πινομένη σὺν ὕδατι ὅσον οὐγ. α΄ ποδαγρικοὺς ὠφελεῖ καὶ χειραγρικούς.

p. 108) 20 ὅσον τοῖς τρισὶ δακτύλοις: L's text is clearly correct. The expression occurs five times in *Comp. Med. Loc.*, e.g. II: XII 582.11–12. In Q πρòς is incorrectly written for ὅσον and this is then emended in the margin to ὅσον ὑπὸ; ὅσον ὑπὸ + dative does not appear to be a permissible construction.

p. 108) 21 Y's δύναται seems obviously right; δύνανται L may have occurred as a result of ἰάσθαι δύνανται at the end of the previous but one sentence.

p. 108) 22 ό τῆς γαλῆς] : "a name given to various animals of the weasel kind, weasel, marten, polecat or foumart" (LSJ s.ν. γαλέη). Its dried flesh helps epileptics SMT XI: XII 321.13–16.

p. 108) 22–23 όδὲ τῆς χελιδόνος μετὰ μέλιτος πρὸς ὑποχύσεις ποιεῖ.] Roast swallow with honey SMT XI: XII 359.14–17 (for sore throats) and in eight recipes in Comp. Med. Loc.; none specifies the brain or indicates treatment of cataracts or other eye problems.

p. 108) 23 καὶ ὁ τῶν προβάτων] Sheeps' brains: no parallel in Galen or elsewhere.

p. 108) 24–25 τοῦ δὲ ταυρείου κέρατος τὸ ξύσμα] Cow horn shavings: no parallel in Galen or elsewhere.

p. 110) 1 καὶ οἱ μηροὶ δὲ καιόμενοι] Burnt thighs [of oxen]: no parallel in Galen or elsewhere.

p. 110) 2 τὸ δὲ τοῦ ἐλάφου κέρατος ῥίνημα καιόμενον] Burnt shavings of deer horn to stabilise loose teeth cf. SMT XI: XII 334.13–16: [ŋ'. Περὶ κεράτων ἐλάφου καὶ αἰγῶν.] Κέρασιν ἐλάφου καὶ αἰγὸς κεκαυμένοις μάλιστα χρῶνται, καθάπερ καὶ ἡμεῖς ἐχρησάμεθα πολλάκις εἴς τε τὸ λαμπρύνειν τοὺς ὀδόντας καὶ προστέλλειν τὰ οὗλα τὰ πλαδαρά.

p. 110) 3–4 ὥσπερ δὴ καὶ τὸν ἀστράγαλον τῆς βοὸς] Burnt ox vertebra: no parallel in Galen or elsewhere.

p. 110) 6–7 of dè toû xástopos ďρχεις όμοίως πινόμενοι σπασμούς lώνται.] : The testicles of the beaver cure spasms. This sentence is crucial to the question

of authenticity in light of *SMT* XI: XII 337.3–341.6 where Galen devotes over four pages of Kühn to καστόριον including a denunciation of the dangerous half-truth that it is "good for spasms". *SMT* XI: XII 338.10–339.2:

άγνοοῦσι δὲ οἱ πλεῖστοι τῶν ἰατρῶν, ἐν τῆ τοῦ καστορίου χρήσει προσέχοντες τὸν νοῦν αὐτῷ μόνῷ τῷ τρέμειν ἢ σπᾶσθαί τι μόριον, ἢ ἀναίσθητον ἢ ἀκίνητον εἶναι, ἢ δυσαίσθητον ἢ δυσκίνητον, μὴ γινώσκοντες ἑπόμενα τοιαῦτα συμπτώματα διαθέσεσι σώματος ἀνομοίαις. ἀλλὰ σύ γε παρ' Ἱπποκράτους μαθὼν ἐπὶ πληρώσει τε καὶ κενώσει γίγνεσθαι σπασμὸν, ἔνθα μὲν χρὴ κενῶσαι τὰ παρὰ φύσιν ἐν τοῖς νεύροις περιεχόμενα, καὶ πίνειν δίδου καὶ κατὰ τοῦ δέρματος ἔξωθεν ἐπιτίθει καστόριον. ἔνθα δὲ δι' ὑπερβάλλουσαν ξηρότητα γίγνεται σπασμὸς, ἐναντιώτατον εἶναι γίγνωσκε τὸ φάρμακον τοῦτο.

"But most doctors in using castoreum pay attention only to the question whether a body part is trembling or going into spasm, not knowing whether the part is without feeling and immoveable or hard to perceive and to move, not knowing that such states of affairs arise from dissimilar dispositions of the body. But you have learnt from Hippocrates that spasm arises both from emptiness and from fullness should both give castoreum to drink and apply it externally to the skin when it is necessary to drain unnatural contents from the nerves. But when spasm results from an excess of dryness you should know that this drug has absolutely the opposite effect." The unqualified statement in *Ther.Pis.* seems to be a clear case of  $\[mathackarvectors of this kind see van Staden (1997).$ 

p. 110) 10 ή γοῦν τῆς βοὸς ἄφοδος ξηρὰ κεκαυμένη] SMT X: XII 290–309 discusses the dung of various animals and birds; 300–301 on cow dung. 301.2, 11 cow dung helps τοὺς ὑδερικοὺς.

p. 110) 11–12 καὶ ἡ τῶν μυῶν ἄφοδος λεία μετ' ὄξους ἀλωπεκίας θεραπεύει·] cf. Comp. Med. Loc. I: XII 392.4 ἥ τε τῶν μυῶν κόπρος ἄρκτου τε τὸ στέαρ—mouse dung and bear's fat are cures for baldness; Comp. Med. Loc. I: XII 404.11–12 μυόχοδα λεῖα κατάχριε, ὀθονίῳ ἐφαιμάξας τὸν τόπον. Rub the affected area bloody with a linen cloth and then rub in smooth mouse dung—attrib. to Cleopatra. No parallel in Galen or elsewhere for treatment of gallstones.

p. 110) 12–13 τὸ δὲ τοῦ χηνὸς στέαρ] Goose fat; very common in recipes in *Comp. Med. Loc., Comp. Med. Gen.* combined with oil of roses and other ingredients in salves for anus *Comp. Med. Loc.* IX: XIII 310.17, 311.4, 18. p. 110) 13–14 καὶ ὁ τοῦ ἐλάφου μυελὸς παρηγορικώτατόν ἐστι φάρμακον.] cf. MMG II: XI 105.4 πρωτεύει δὲ τῶν μὲν μυελῶν πάντων ὁ ἐλάφειος· [sc. as a φάρμακον μαλακτικόν].

p. 110) 14 τὸ δὲ τῆς βοὸς γάλα πινόμενον δυσεντεριχοῖς βοηθεῖ.] Cow's milk helps in cases of dysentery. Milk recommended for this purpose *Alim. Fac.* III: VI 683.1–4, *SMT* X: XII 266.18–267.6, 292.3–7, *Comp. Med. Loc.* VIII: XIII 171.10–12. All recommend putting hot stones in the milk to reduce its liquid content. The last recommends ass's or woman's or cow's milk, the others are silent on the point. Galen elsewhere states that goat's milk is in general the most frequently used παρ' ἡμῖν—i.e. in Asia—cow's milk elsewhere: *Bon. Mal. Suc.* VI 765.8–9.

p. 110) 14–15 τῆς δὲ ὑαίνης ἡ χολὴ μετὰ μέλιτος πρὸς ὀξυδερκίαν ποιεῖ, καὶ τὰς ὑποχύσεις διαφορεῖ ἐγχριομένη.] Cf. SMT X: XII 279.1–9: hyena's yellow bile with honey produces ὀξυδερκίαν and cures cataracts.

p. 110) 16 τοῦ δ' ἰπποποτάμου τὸ δέρμα] Cf. Comp. Med. Loc. I: XII 409.4 ἢ ἱπποποτάμου δέρμα καύσας κατάχριε as a cure for baldness, not for cancerous growths. The proximity to the cure for baldness immediately following and the peculiar wording φυμάτων σκορπιστικὸν γίνεται might be grounds for suspecting the text. The Arabic text however agrees that hippopotamus skin helps against hard dry cancerous growths—nützt gegen trockene harte Geschwulste.

p. 110) 16 μετὰ ὕδατος: Chartier emends to μεθ' ὕδατος but μετὰ ὕδατος occurs six times in the Galenic corpus excluding *Ther.Pis.* as against 118 occurrences of μεθ' ὕδατος and I consider it justifiable to permit L's reading to stand. Note that L has μεθ' ὕδατος at p. 108. l. 25 above.

p. 110) 17 σκορπιστικόν] dissipative of LSJ *s.v.* citing only this instance and the sixth century Simplicius *Commentary on Aristotle Physics* 1186.2. From σκορπίζω to scatter; the only possibly earlier occurrence in TLG is in pseudo Agathodaemon the Alchemist ?1–2 AD. The other occurrences in TLG are Paul.Med. 7.3.4.22 (= this passage of *Ther.Pis.*) and two instances in the *Hippiatrica*.

p. 110) 17 τὸ ἔχεως δέρμα] presumably the skin as opposed to the shed skin (γῆρας). No recommendation elsewhere in Galen of viper skin for this or any other purpose.

p. 110) 18 τὸ δὲ τῆς ἀσπίδος γῆρας] No reference elsewhere in Galen to the γῆρας (sloughed skin) of the asp. ὄφεως γῆρας (cf. τῶν ὄφεων γῆρας page 110 line 9) recommended for toothache *SMT* XI: XII 342.9, *Comp. Med. Loc.* V: XII 860.5, earache *Comp. Med. Loc.* III: XII 622.16, deafness *Comp. Med. Loc.* III: XII 652.6, black eye *Comp. Med. Loc.* V: XII 813.11–12.

p. 110) 20–21 <sup>γ</sup>να μὴ μακρὸς ἡμῖν ὁ λόγος γένηται] A professed desire to avoid prolixity, μακρολογία, is common in Galen e.g. <sup>γ</sup>να μὴ μακρολογῶ περιττῶς *MM* I: X 25.5–6, <sup>γ</sup>να μὴ μακρὸς ὁ προκείμενος γίγνοιτο λόγος *UP* IX: III 692.7–8. ἡμῖν—the mss. and editions have ὑμῖν. However the treatise is addressed to a single individual who is called συ, σε etc. throughout except at page 86 line 19 where the addressee is perhaps the Roman people in general. Cf. <sup>γ</sup>να μὴ μακρὸν τὸ βιβλίον ἡμῖν γένηται p. 126. l. 21.

p. 110) 23–24 καρκίνος γοῦν ὁ ἀπὸ τῶν ποταμῶν λειωθεὶς καὶ καταπλασθεἰς ἀνεκβάλλει τοὺς σκόλοπας καὶ τὰς ἀκίδας.] The crab as a drug ingredient elsewhere in Galen *Ant.* II: XIV 172.10 (for rabid dog bite), *Comp. Med. Loc.* IX: XIII 264.1 (for dropsy: as here, river crab is specified). Treatments for τοὺς σκόλοπας καὶ τὰς ἀκίδας *SMT* VII: XII 7.10–13, *Comp. Med. Gen.* V: XIII 787.12–788.4, *Comp. Med. Loc.* X: XIII 343.6–344.7.

p. 110) 25 ὁ δὲ σκορπίος] Remedies for the scorpion's sting occur frequently in Galen; as an ingredient only at *SMT* XI: XII 366.2–4 as remedy for its own sting, whether applied externally or eaten: καὶ σκορπίον δὲ τὴν ἑαυτοῦ πληγὴν ἐκθεραπεύειν ἐπιτιθέμενον λεῖον· ὡσαύτως δὲ καὶ ὀπτὸν ἐσθιόμενον.

p. 110) 26 τὸ γῆς ἔντερον] Earthworms: recommended e.g. for damaged tendons, and as a diuretic: *SMT* XI: XII 363.3–9; not for bladder stones, jaundice or gout.

p. 112) 2 [ $i\epsilon\rho\alpha\xi$ ] The hawk. Not discussed as a drug ingredient though its bile and dung are (*SMT* X: XII 280.12, 305.3)

p. 112) 2  $\delta \chi \alpha \nu \theta \alpha \rho \sigma \varsigma$ ] The dung beetle. Not referred to elsewhere in Galen whereas  $\dot{\eta} \chi \alpha \nu \theta \alpha \rho \dot{\varsigma}$  the blister beetle is commonly referred to both as a drug and as a poison (Temp. III: I 667.6–8 expressly points out that it both helps and

harms, and cf. page 82 line 16 above). ή κανθαρίς not recommended for earache elsewhere.

p. 112) 3–4 ό δὲ κορυδαλὸς ὀπτὸς τρωγόμενος θαυμασίως τοὺς κωλικοὺς πολλάκις ἀφέλησε] Roast lark. Cf. SMT XI: XII 360.9–12 <sup>°</sup>Ο γε μὴν κόρυδος τὸ πτηνὸν ζώον τουτὶ τὸ μικρὸν, ὅ καὶ κατὰ τὰς ὁδοὺς πολλάκις ὁρῶμεν, ἑψόμενον ἐν τῷ ζωμῷ τοὺς κωλικοὺς ὠφελεῖ. χρὴ δὲ συνεχῶς καὶ πολλάκις ἐσθίειν αὐτὸ μετὰ τοῦ ζωμοῦ. Note the difference in preparation—boiled in soup rather than roast—and instructions on dosage. The passage goes on to distinguish between the κόρυδος and similar birds—an instance of διορισμός lacking in *Ther.Pis*.

p. 112) 6 ό οὖν ἀσκαλαβώτης] spotted lizard, gecko, Platydactylus mauretanicus LSJ s.ν. Elsewhere in Galen cures the scorpion's sting if applied ground fine, or eaten: καὶ σκορπίον δὲ τὴν ἑαυτοῦ πληγὴν ἐκθεραπεύειν ἐπιτιθέμενον λεῖον· ώσαὐτως δὲ καὶ ὀπτὸν ἐσθιόμενον. ἀρμόττειν δ' αὐτόν φασι καὶ τοῖς ὑπ' ἐχίδνης δηχθεῖσιν, ἀσκαλαβώτην δὲ τοῖς ὑπὸ σκορπίου SMT XI: XII 366.2–6. Outside Galen carrying a gecko in the hands gives protection against scorpions—Philumenus Ven. 14 9.1–4 τοῖς δὲ ὑπὸ σκορπίου πεπληγόσιν ἑλενίου ῥίζαν διδόασι μασâσθαι, ἕως ἀπονοι γἑνωνται· κἂν ἔχῃ δἑ τις αὐτὸ μετὰ χεῖρας, οὐκ ἀδικήσει ὁ σκορπίος ἢ εὑρὼν ἀσκαλαβώτην φόρει, καὶ οὐ πληγήσῃ. Cures scorpion sting if torn up and applied to the wound—Aelius Promotus κατάπλασσον δὲ τῇ πληγῇ καὶ τὸν σκορπίον τὸν πλήξαντα, εἰ εὑρεθείη, ἢ ἀσκαλαβώτην ἀνάσχισον καὶ ἐπίθες τῇ πληγῇ. Περὶ τῶν ἰοβόλων θηρίων καὶ δηλητηρίων φαρμάκων 15.29–31.

p. 112) 7 ή δὲ ἀμφίσβαινα] Not elsewhere in Galen except in the Andromachus poem above p. 90. l. 9. The amphisbaina is described by Nicander *Ther.* 372 ff. No evidence elsewhere in Greek for the belief about pregnant women but the same belief is found in Pliny *Nat. Hist.* XXX 128.1–6 "Viperam mulier praegnans si transcenderit, abortum faciet, item amphisbaenam, mortuam dumtaxat, nam vivam habentes in pyxide inpune transeunt; etiam si mortua sit atque adservata, partus faciles praestat. (in) mortua mirum, si sine adservata transcenderit gravida, innoxium fieri, si protinus transcendat adservatam." The correspondence between ὑπερβάλη and transcenderit links the beliefs in the two passages. That in Pliny is more complex than that in *Ther.Pis.*; the text of Pliny is unsatisfactory but appears to say that stepping over the dead amphisbaena causes miscarriage but that having a live one in a box both protects against miscarriage in those circumstances and also guarantees an easy childbirth.

p. 112) 15 Chartier chapter heading (see Introduction p. 62): Πώς τὰ βλαβερὰ ἐνίοτε ἔχουσιν ὠφελεῖν· μίαν τε ἐκ πολλών γίγνεσθαι ποιότητα ἐν τοῖς μικτοῖς φαρμάκοις.

p. 112) 18–19 καί φησί τις ἀρχαῖος λόγος] cf.ἐμοὶ δὲ καὶ λόγος τἰς ἀρχαῖος ἐμήνυσεν p. 122. l. 8, ἐμοὶ δὲ καὶ ἐξ ἱστορίας τἰς ἐμήνυσε λόγος p. 86. l. 12. No similar phrase elsewhere in Galen, emphasizing the anecdotal style of *Ther.Pis*. The expression is commonplace elsewhere—e.g. Soph. *Trach*.1–3:

Λόγος μὲν ἔστ' ἀρχαῖος ἀνθρώπων φανεἰς ὡς οὐκ ἂν αἰῶν' ἐκμάθοις βροτῶν, πρὶν ἂν θάνῃ τις, οὕτ' εἰ χρηστὸς οὕτ' εἴ τῷ κακός·

p. 112) 19–21 ὅτι τινὰ τῶν ζώων ὁμιλήσαντα μὲν ἐν τῷ δάχνειν τῷ ἐχ τοῦ δήγματος ἀποκρινομένῳ ἀνθρωπείῳ αἵματι ἀναιρεῖ τοὺς δαχνομένους. μὴ γευσάμενα δὲ τοῦ αἵματος, ἀλλ' οὕτως ἐσθιόμενα, τοὺς δηχθέντας διασώζειν πέφυχεν.] There is a degree of incoherence about the statement. Some animals kill their victims if they come into contact with the blood secreted from the wound—not as we would expect with the blood remaining in the bloodstream; if they do not taste the blood but are then eaten they "save the victim" but *ex hypothesi* he should not need saving if the animal has not tasted the blood. The Arabic clearly conveys the idea of the poison entering the bloodstream: manche Tiere töten, wenn sie jemanden beissen, und ihr Gift in das Blut des Gebissenen nicht schmeckt, tötet es nicht. The Greek text suggests a theory of action at a distance which could be characterised as magic (cf. the effect on the pregnant woman of stepping over—but not coming into contact with—the amphisbaina, above). The Arabic may represent a deliberate re-writing of the text since the difference between the texts cannot be accounted for by errors in transmission.

p. 112) 21–22 űσπερ καὶ ἐπὶ τοῦ ἑλενίου] see note on τρίφυλλον at p. 82. l. 4. If Labbé's objection is to the inherent implausibility of the account of the effects of ἑλενίον it is worth pointing out that the new world drug curare has precisely the effect claimed for ἑλενίον: "Curare is one of the names coined by South American Indians to describe the plant-derived poisons that they used to coat the tips of their hunting arrows or blow-pipe darts. The poison is little absorbed after oral ingestion and hence the meat from animals killed with curare is harmless" (W.C. Bowman "Neuromuscular Block" British Journal of Pharmacology (2006) 147, S277–S286.) I am not aware of any old-world drug with a similar effect. However the use of poisoned arrows to hunt prey necessarily implies a poison which kills the prey but not the subsequent consumer of the prey and Cicero Celsus and Pliny all report the existence of arrow poisons for hunting: "Limeum herba appellatur a Gallis, qua sagittas in venatu tingunt medicamento, quod venenum cervarium vocant" Pliny *NH* 27.101.1–3; "Nam uenenum serpentis, ut quaedam etiam uenatoria uenena, quibus Galli praecipue utuntur, non gustu, sed in uulnere nocent." Celsus *De Medicina* 5.27.3b.5–3c.1; "capras autem in Creta feras, cum essent confixae venenatis sagittis, herbam quaerere quae dictamnus vocaretur, quam cum gustavissent sagittas excidere dicunt e corpore." Cicero, *De Natura Deorum* 2.126.10–127.1.

p. 112) 22 ὑπὸ δὲ τῶν ἐπιχωρίων] i.e. by the Dacians and Dalmatians not, *pace* Nutton (1997, 141), the Romans. In Galen ἐπιχώριος means "local relative to the subject under discussion", not "local relative to Galen's current position". e.g. *SMT* IX: XII 174.3,4.

p. 112) 22 νίνου καλουμένου: νίνον not found elsewhere in Greek or Latin sources. Chartier and Kühn have νίκου η νίνου following Rasario's incolae Nicum appellant, Rota's de Helenio a Graecis, Nico ab incolis appellato and Andernachs's Nico appellato: the mss. and previous edd. clearly read νίνου. Paulus Med. VI 88 (4) 18–21 presumably based on this passage has νίνον: φασὶ δὲ τοὺς Δάκας καὶ τοὺς Δελμάτας περιπλάσσειν ταῖς ἀκίσι τὸ ἑλένιόν τε καὶ νίνον καλούμενον, καὶ οὕτως ὁμι-λῆσαν μὲν τῷ αἴματι τῶν τιτρωσκομένων ἀναιρεῖν, ἐσθιόμενον δὲ ὑπ' αὐτῶν ἀβλαβὲς εἶναι καὶ μηδὲν κακὸν δρᾶν.

p. 114) 5 Cf the attack on empiricism at p. 76. l. 1 ff.

p. 114) 18 εὕρωμεν: the reading of L and N and undoubtedly correct: the optative εὕροιμεν in  $Q^1$  and the Aldine and subsequent editions is impossible after the primary tense of ἔχομεν.

p. 114) 24 βρωθέντας] : βιβρώσκω usually means to eat. LSJ *s.v.* cites this passage only for the meaning "to bite". No reference elsewhere in Galen to crocodile fat or to crocodile as healing its own wounds. Crocodile dung is recommended frequently in *SMT*, e.g. X: XII 307.18.

p. 114) 25 The field mouse cures its own bites if cut open and applied to the wound at *SMT* XI: XII 365.18–366.2. Note that this passage immediately precedes that dealing with scorpions quoted above in note to p. 112. l. 6.

p. 116) 8 L has πλείων αὐτοῖς which Q<sup>1</sup> changes to πλείων τούτοις, and Ald. and subsequent editions to πλείων ἐν τούτοις. As to ἐν Galen almost always has

ἔνειμι with ἐν plus dative, rather than dative alone, but there is at least one exception—*Hipp. Aph.* XVIIIa 187.9; conversely Plutarch, for instance, regularly has ἔνειμι plus dative alone. I see no justification for the insertion of ἐν.

αὐταῖς clearly gives the sense required that the majority of the poison is in the head and that is why removing the head reduces the danger posed by the snake.

p. 116) 10 Q<sup>2</sup>'s emendation μέρεσιν for σώμασιν is unnecessary. ἐν τοῖς ἄλλοις can mean "in the other parts of the body" rather than "in the other bodies": cf. Ars Med. I 387.11–13 ὡς τὰ πολλὰ γὰρ οἱ παρακείμενοι μύες ἅμα τοῖς ἄλλοις σώμασι πάσχουσι, ἑηγνυμένων τῶν ὀστῶν.

p. 116) 17 ή γάρ τοι κανθαρίς: cf. page 82 line 16 where the point is that the harm done by the blister beetle is specific to the bladder; here the point is that it is harmful per se but beneficial when mixed with other drugs. *SMT* III: XI 609.2–15 treats the use of the κανθαρίς in a complex diuretic drug as an example of how a poison can be beneficial in a compound drug. cf Pliny *NH* 29.93.1–3—cantharides dangerous, but used to treat bladder problems.

p. 116) 19 ἰσχυρία L is vox nihili. Q<sup>2</sup>'s emendation is the most obvious one.

p. 116) 20 ὁ δὲ ὀπὸς τῆς μήκωνος] Poppy juice, opium. Frequent in Galenic recipes, including ones for kidney problems, e.g. *Comp. Med. Loc.* X: XIII 327.9–15 and sleeplessness, e.g. *Comp. Med. Loc.* VII: XIII 45.10–11. See also *Ant.* I: XIV 4.4–9 on Marcus Aurelius having to adjust the opium content of his daily dose of theriac in order to regulate his sleep patterns.

p. 116) 24 The spider ground up and taken with wine is a remedy for its own bite. Cf. the scorpion SMT XI: XII 366.2–4 as remedy for its own sting, whether applied externally or eaten:  $\kappa\alpha$  σκορπίον δὲ τὴν ἑαυτοῦ πληγὴν ἐκθεραπεύειν ἐπιτιθέμενον λεῖον· ὡσαύτως δὲ καὶ ἀπτὸν ἐσθιόμενον. Cf. also above p. 82. l. 4 for a similar paradox relating to the spider, that the trefoil both cures its bite and produces the same symptoms as the bite if applied to unbitten skin.

p. 118) 8 The argument that two substances can be mixed in such a way that a third substance qualitatively different from either of the two components is generated is apparently not expressed elsewhere in Galen's pharmacological works as a theoretical justification for the use of compound drugs: on the contrary it is presented as an objection to them at *Comp. Med. Gen.* I: XIII 364.9-365.1: oloµένων τινῶν ἐν τῇ συνθέσει διαφθείρεσθαι παντάπασι τὰς ἐναντίας

άλλήλαις δυνάμεις των άπλων φαρμάκων. εί γαρ ὕδωρ, φασὶ, τὸ ζεστότατον τῶ ψυχροτάτω μίξεις, οὐδέτερον μενεῖ τῶν μιγθέντων ὁποῖον ἦν ἔμπροσθεν, ἀλλ' ἕν τι γενήσεται τρίτον, ἕτερον ἀμφοῖν. ἐδείχθησαν δὲ κἀνταῦθα ληροῦντες μάταια διὰ τὸ μή γινώσκειν ένια μέν τῶν προσφερομένων τῷ σώματι κατὰ τὰς ἐμφύτους δυνάμεις, ἔνια δὲ κατὰ τὰς ἐπικτήτους ποιότητας ἐνεργεῖν: just as if you mix very hot and very cold water you end up with a third substance which is neither one nor the other, so the combination of simple drugs causes them to destroy each other's faculties. Galen counters this argument with an ineffectual counter argument based on the difference between innate and acquired qualities (ineffectual because it does not address the case where two simples with opposed innate qualities are combined). The third book of On Mixtures, Galen's most extensive treatment of the theory of mixtures of simples, is silent on the possibility of drugs in mixtures acting on each other: they act on the body or the body on them. There is only one reference to interaction between drugs, where it is said that a very potent drug can be usefully taken if combined with others which restrain its effect—σύν τοῖς κολάζουσι τὴν ἰσχύν αὐτοῦ Temp. III.I 665.16. The theory that the purpose of making complex medicaments is to restrain the effect of the more potent ingredients occurs in Ther.Pis. Chapter V (p. 84. l. 16 above) and cf. below ανάγκη τῆς κράσεως δι' ὅλων τῶν κιρναμένων γιγνομένης τὸ ἰσχυρότερον τοῦ ἥττονος κρατεῖν, καὶ διὰ τοῦτο ἡμεῖς ταῖς ἐντέχνοις μίξεσι πρὸς την χρείαν της ένεργείας τας ποιότητας των φαρμάκων έναλλάσσομεν—i.e. the overpowering of weaker ingredients by stronger is equated with the change to a new substance effected by the doctor; cf. also the discussion in Ant. I Chapter 2 of the quality of ingredients used to make theriac; the danger is that if some ingredients are of good quality and others not the composite drug will be overpowered (ἐπικρατηθήναι Ant. I.2:XIV 6.7) by the former. The idea of deliberately combining multiple drugs to produce a new drug with its own character distinct from that of its components is outlined in passing in an analogy in Quod qualitates incorporeae sint XIX 478.5-7: δ μέν οὖν ἰατρός συντιθείς έκ πολλών φαρμάκων ἕτερον φάρμακον ίδίαν ποιότητα πάντων ἐχόντων ποιὸν ἕτερον ἐκ τῆς μίξεως ποιεῖ· The sense is that it is universally conceded that the doctor can produce a new quality out of a mixture in this fashion and therefore absurd to suggest that God cannot produce new qualities out of primal matter (τη πρώτη οὐσία). Note that Quod qualitates incorporeae sint is regarded by Kühn as one of the "libri manifeste spurii" (Kühn I XIX), [s]purius ... ex sensu omnium (Kühn I CLXII); it is treated as genuine by some more recent scholars e.g. Hankinson (2004) Hankinson (2008a) but spurious by others e.g. (Algra 1999) 812. The Aldine edition lists it as spurious along with 12 other works which are either omitted altogether by Hankinson or marked by him as spurious or possibly spurious.

p. 118) 11 μοι νόμιζε] μοι is a "polite" or "ethic" dative—"please consider." No parallels elsewhere in Galen. In τὰ δ' αὐτὰ κἀπὶ τῆς κλειδὸς εἰρῆσθαί μοι νόμιζε *AA* IV: II.428 13–14 μοι appears to be a dative of agency after εἰρῆσθαί.

p. 118) 15 Attacks on Epicurus, Democritus and Asclepiades for their atomist beliefs are frequent in Galen; e.g. and cf p. 78. l. 10 and note. The reason for Galen's hostility is that atomism is rejected by Hippocrates (quoted as saying Έγὼ δέ φημι, εἰ ἒν ἦν ὥνθρωπος, οὐδέποτ' ἂν ἤλγεεν· οὐδὲ γὰρ ἂν ἦν ὑφ' ὅτου ἀλγήσειεν Ἐν ἐών. *Hipp. Elem.* I: I 415.15–16) and contrary to his theory of natural faculties according to which specific attractions exist between specific organs, foodstuffs and drugs: see above p. 78 and cf. Hankinson (2008a) 223–225, May (1968) 49–50 (making the point that to explain something merely by reference to a "faculty" is not really to explain it at all as Galen concedes *Nat.Fac.* I: II 9.13–10.2 καὶ μέχρι γ' ἂν ἀγνοῶμεν τὴν οὐσίαν τῆς ἐνεργούσης αἰτίας, δύναμιν αὐτὴν ὀνομάζομεν, εἶναί τινα λέγοντες αἰτίας, δύναμιν αὐτὴν ἀνομάζομεν, εἶναί τινα λέγοντες αἰτίας, δύναμιν αὐτὴν κοιλία πεπτικὴν κἀν τῆ καρδία σφυγμικὴν καὶ καθ' ἕκαστον τῶν ἄλλων ἰδίαν τινὰ τῆς κατὰ τὸ μόριον ἐνεργείας). and thirdly is opposed to the view of the body as an example of (thousands of instances of) intelligent design which underlies *On the Utility of the Parts.* 

p. 118) 16 Chartier chapter heading (see Introduction p. 62): Ἀσκληπιάδου τε καὶ Ἐπικούρου ἀντίρρησις, τῶν τὴν ἀλλοίωσιν ἀποφασκόντων καὶ τὰ τῆς φύσεως ἔργα πρὸς τοὺς ἀτόμους τε καὶ ὄγκους ἀναφερόντων.

p. 118) 17 For the observation that Epicurus' ἀτόμοι are the same thing as Asclepiades' ὄγκοι cf. UP VI:III 474.16-19 ὧν οὐδὲν οὔτ' ἐγίγνωσκεν Ἀσκληπιάδης οὔτ', εἴπερ ἔγνω, δυνατὸν ἦν αὐτῷ τὰς αἰτίας ἐξευρεῖν εἰς ὄγκους καὶ κενὸν ἀνάγοντι τῶν γιγνομένων άπάντων τὰς ἀρχάς; UP XI:III 873.17–18: ταῖς τ' Ἐπικουρείοις ἀτόμοις καὶ τοῖς Ἀσκληπιαδείοις ὄγκοις and see generally Vallance (1990). Asclepiades' physiological theory of ὄγχοι and πόροι is poorly understood but it is possible to say that the statement here that they are the same thing as Epicurus' ἀτόμοι and κενόν is tendentious. In the places cited in UP and in all other instances that I can identify, where Galen groups Epicurus' and Asclepiades' theories together he does so not on the grounds that they are identical but that they are both monistic theories and he is opposed to all such theories. So San. Tu. I:VI 15 8–12 clearly sees them as different but similar theories: συμμετρία γάρ δή τις ἡ ὑγεία κατὰ πάσας ἐστὶ τὰς αἱρέσεις, ἀλλὰ καθ' ἡμᾶς μὲν ὑγροῦ καὶ ξηροῦ καὶ θερμοῦ καὶ ψυχροῦ, κατ' ἄλλους δὲ ὄγκων καὶ πόρων, κατ' ἄλλους δὲ ἀτόμων ἢ άνάρμων η άμερων η όμοιομερων η άνομοιομερων η ότου δη των πρώτων στοιχείων. The basis of that opposition is Hippocrates De natura hominis 2.10-11 Ἐγώ δέ

φημι, εί εν ήν ό άνθρωπος, οὐδέποτ' αν ἤλγεεν· οὐδὲ γὰρ αν ήν ὑφ' ὅτου ἀλγήσειεν ἕν ἐών· cf. CAM I 247.8–9 φησὶν οὖν ὁ Ἱπποκράτης, ἐγὼ δέ φημι, εἰ ἕν ἦν ἄνθρωπος, οὐδέποτ' ἂν ἤλγεεν, ὀρθότατα λέγων. So Morb. Diff. VI 839.16-840.1 οὐκ οὖν έν έστι τὸ τῶν ζώων σῶμα, καθάπερ ἢ ἄτομος ἡ Ἐπικούρειος, ἢ τῶν ἀνάρμων τῶν Άσκληπιάδου· σύνθετον ἄρα πάντως. Similarly in Hipp. Epid. IV: XVIIb 162.7-9 τὸ δὲ κενὰς εἶναί τινας χώρας ἢ κατὰ τὸ ὕδωρ ἢ κατὰ τὸν ἀέρα τῇ μὲν Ἐπικούρου τε καὶ Ἀσκληπιάδου δόξη περὶ τῶν στοιγείων ἀκόλουθόν ἐστι· This passage appears to treat Epicurus' and Asclepiades' theories as equivalent and, importantly, to confirm that in Galen's eyes Asclepiades' theory is a theory of physics (applying generally to air and water). In fact the theory may in reality have been a theory of physiology only. The most important evidence to the contrary is precisely this passage in Ther.Pis.: "Supporters of the thesis that Asclepiades was either an Epicurean, or at least heavily influenced by Epicurean atomism, invariably appeal to a chapter in the Galenic treatise De theriaca ad Pisonem, entitled 'Refutation of Asclepiades and Epicurus, who deny alteration and refer the works of nature to the atoms and corpuscles'." Vallance (1990) 37-38. In fact there are good grounds for doubting whether Asclepiades' theory had anything in common with Epicurean atomism beyond positing corpuscles of one type of material since Asclepiades was a doctor and not a philosopher, an ὄγκος differs importantly from an ἄτομος in being breakable (CAM I 249.13-15 οὐ μὴν οὐδὲ τὸ άναρμον τὸ Ἀσκληπιάδου θραυστὸν ὂν ὀδυνήσεται θραυόμενον, ἀναίσθητον γάρ ἐστιν) and a  $\pi$ óρος means something very different from a χενόν in Greek. The word connotes a passage through something (the root meaning according to LSJ s.v. is "means of passing a river, ford, ferry") and in a medical context usually means a vessel along which air, blood, food and so on can pass. (Galen distinguishes the latter kind of  $\pi \acute{o} \rho \circ \varsigma$  from that posited by Asclepiades at *Morb. Diff.* VI 857.18– 858.15). The puzzling aspect of this passage is that the argument in *Ther.Pis*. as elsewhere in Galen requires only that Asclepiades' and Epicurus' particles should be of one unchangeable substance and the insistence that the two theories are not merely functionally equivalent but identical save for terminology is unexplained. As with the discussion of  $\lambda \delta \gamma \circ \zeta$  and  $\epsilon \mu \pi \epsilon \iota \rho (\alpha$  in Chapter III the doctrine stated is compatible with what we find elsewhere in Galen but at an extreme end of the spectrum

Galen's argument is that if the particles cannot suffer then nothing made of them can suffer either. The counter-argument that pain may be an emergent or supervening property of collections of particles without being a property of the particles individually, just as the particles in an odd-numbered collection of particles are not themselves odd-numbered, is apparently rejected at *Morb*. *Diff*. VI 840.1–5:  $d\lambda\lambda'$  el μèν ἐξ ἀτόμων, ἢ ἀνάρμων, ἢ ὅλως ἐξ ἀπαθῶν τινων σύγκειται [sc. τὸ τῶν ζώων σῶμα], τὸ μάλλόν τε καὶ ἦττον ἐν τῷ ποιῷ τῆς συνθέσεως ἕξει δίκην οἰκίας ἐξ ἀπαθῶν μὲν λίθων συγκειμένης, οὐ μὴν ἐν τῆ συνθέσει γε πάντῃ κατορθουμένης. The analogy with the stones which constitute a house seems however to favour rather than disprove the argument that a property—that of being a house—can emerge out of constituent parts which do not have that property: stones are not houses.

p. 120) 3 ό εἰρημένος ἰατρὸς Ἀσκληπιάδης<sup>.</sup> The word in L is difficult to decipher but appears to be an abbreviated εἰρημένος. Y's νῦν and N's μείων (which is consistent with L but unlikely since the only passage in Galen which distinguishes two doctors called Asclepiades calls Asclepiades of Bithynia the elder—*Comp. Med. Loc.* I: XII 410.8–12) are attempts to make sense of the word which I take to be εἰρημένος. The Arabic has "Am grössten ist meine Verwunderung über den Arzt Asklepiades, denn ich wetteifere mit ihm, da er en Arzt war …" where the intention seems to be to expand οἰκείως and den Arzt is unqualified. I therefore take L to have a deliberate erasure of a mistake. cf. p. 118. l. 17 above κατὰ τὸν ἰατρὸν Ἀσκληπιάδην, and other occurrences of Ἀσκληπιάδης ὁ ἰατρός e.g. *El Ex Hipp.* I: I 487.11–12.

p. 120) 5 οὐκ ἀποδέχεται: the mss. have ἔχων δείκνυται which makes no sense. Q<sup>2</sup> emends to οὐκ ἐνδείκνυται. In Galen ἐνδείκνυται is frequently used in the sense that state of affairs A materially implies state of affairs B—e.g. *Caus. Symp.* III:VII 213.14–16 τὸ γὰρ μηδ' ὅλως ἐνεργῆσαι περὶ τὰ σύμμετρά τε καὶ συνήθη σιτία μεγίστην ἐνδείκνυται τῆς γαστρὸς τὴν δυσκρασίαν· *UP* XII: IV 5.5–7 οὕτως οὖν καὶ ἐπὶ δημιουργικῆς τέχνης ἀπάσης ἀκρίβειαν ἡ τῆς συμμετρίας στενότης ἐνδείκνυται. There is a rare exception *PHP* IV: V 385.13–15 ἐναργῶς ἐν τούτοις ὁ Χρύσιππος ἐνδείκνυται τὰ δύο σημαινόμενα τῆς ἄλογον φωνῆς. The sense required here is "does not accept" or "is unable to account for," not "does not prove the existence of". For ἀποδέχομαι cf. p. 114. l. 7.

p. 120) 5 cf. SMT III: XI 584.13–15 ὥσπερ ὅταν εἰς ὕδωρ ψυχρὸν ἕνα δάκτυλον ἀθρόως καθέντες ἐν ψύχει σφοδρῷ φρίξομεν ὅλην τὴν χεῖρα, πολλάκις δὲ καὶ σύμπαν τὸ σῶμα· The simile is to illustrate how the different elements of a non-homogenous simple are immediately perceived by the tongue and has no evident connection with atomist theories.

p. 120) 11 cf. *Hipp. Epid. III* II: XVIIa 635.8–10 ἐνίοτε μὲν γὰρ πηδήσασαι σφοδρότερον ἢ δείσασαί τι τῶν ὀφθέντων αὐταῖς φοβερῶν αἰφνιδίως ἐκτιτρώσκουσιν αἰ γυναῖκες. Part of a survey of the causes of miscarriage and not connected with atomism. p. 122) 3 διαπλάττεται τὸ ἔμβρυον] : distinctively Galenic. διαπλάσσω/ διαπλάττω and cognate διαπλάσις are used very frequently by him to describe the formation of the foetus in the womb.

p. 122) 4 τρέφει: L has τρέψει changed by Q<sup>2</sup> to τρέφεται, the passive corresponding to διαπλάττεται; however the next two verbs κρατεῖ and ἐργάζεται are active, their subject being ἡ φύσις, and the one-letter emendation appears more probable.

p. 122) 6 όμοιότητα τύπων: L has οἴα δέ τινι θεία τέχνη καὶ ὁμοιότητι τύπων ἐν τοῖς γεννωμένοις ἐργάζεται. Q<sup>2</sup> and Y alter τύπων to τύπον correctly seeing that ἐργάζεται require an object. It makes more sense to retain τύπων and read ὑμοιότητα for ὑμοιότητι—nature is producing a similarity of appearances, rather than creating an appearance with "skill and similarity".

p. 122) 8 The so-called theory of maternal impression. Cf. Soranus Gyn. I.39 (1) 3–6: ὁ δὲ τῶν Κυπρίων τύραννος κακόμορφος ὢν εἰς ἀγάλματα περικαλλῆ κατὰ τούς πλησιασμούς την γυναϊκα βλέπειν αναγκάζων [δ] πατήρ εύμόρφων έγένετο παίδων Heliodorus *Aethiopica* 4.8.5 is less to the point since the contemplation of the painting and its effect on the unborn child are entirely unintentional.  $Q^{2's}$  emendation δυνατός of δυνατών is a second attempt in that he makes a first emendation of the letters following  $\delta u a$  above the word in the text and then erases it and puts  $-\tau \delta \varsigma$  in the margin. Of the translators Rota has hominem opulentum quidem, sed deformem and Chartier and Kühn have deformis quidam opibus potens while the Arabic omits the words altogether describing the man simply as "einen der Alten". According to LSJ δυνατός can mean "powerful, influential" and is understandable on the basis that Soranus identifies the man as a  $\tau$ ύραννος. For the identification of the protagonist only as  $\tau_{I\zeta}$  cf above p. 86. l. 12 and note (anecdote about Hannibal and Eumenes II) and p. 68 (Lusus Troiae and the festival at which the incident occurs described by periphrases rather than proper names). The phrasing is awkward in that it seems odd to treat "the ugly" as a natural class but cf Aelius Aristides Πρός Πλάτωνα ὑπὲρ τῶν τεττάρων 150.5 μαρτύριον μέγιστον εἶναι τοῖς ὑπὲρ αὐτοῦ λόγοις καὶ ὡς οὐ τῶν φαύλων τις ἦν. For the phrase cf. Xen. Cyr. 5.4.1 Γαδάτα ἱππικοῦ τών δυνατών τις ανδρών—one of the powerful men in Gadatas' cavalry. For the construction in Q cf. Aristoph. Pax 43-44 οὐκοῦν ἂν ἤδη τῶν θεατῶν τις λέγοι νεανίας δοκησίσοφος. But L's genitive plural appears in principle equally acceptable.

p. 122) 20–21 τὸ ὑπὸ τῆς ἄρκτου γιγνόμενον ἔργον;] cf. Comp. Med. Loc. I: XII 425.16–426.1 βρέφους δ' ἀμόρφου δοκεῖ μοι λέγειν τῆς ἄρκτου. ταύτην γάρ φασιν ἀποκυΐσκεσθαι μὲν ἄμορφον, ὡσανεἰ σαρκῶδές τι μέρος. ἐκλειχούσης δὲ τοῦτο τῆς μητρὸς διαμορφοῦσθαι τὸ ζῶον glossing a recipe which refers to βρέφους ἀμόρφου στέατος λίτραν μίαν Comp. Med. Loc. I: XII 423.2–3

p. 122) 27 The florid imagery is atypical of Galen. For a description of the horse as yaûpoç cf. *UP* I: III 2.11–15 πασι δ' οὖν ἐπιτήδειον τὸ σῶμα τοῖς τῆς ψυχῆς ἤθεσί τε καὶ δυνάμεσιν<sup>-</sup> ἴππῷ μὲν ἰσχυραῖς ὁπλαῖς καὶ χαίτῃ κεκοσμημένον, καὶ γὰρ ὠκὐ καὶ yaῦpov καὶ οὐκ ἄθυμον τὸ ζῷον. The word is often used of horses by other authors. The text is difficult: μέτρα means bits (for horses) Pi.O.13.20 but not apparently elsewhere, and its use in that sense as a simile for χαλινῷ (itself a simile) would be redundant (unless one is a gloss of the other, which has crept into the text). I have accepted Q<sup>2</sup>'s transposition. The range of variants on φιλοτίμοις is also puzzling: φιτοτίμοις/ φοιτοτίμοις are not words and φυλοτίμος occurs only as a proper name. Crat. and subsequent editions print φιλοτίμοις which seems the obvious emendation given this author's fondness for the word.

p. 124) 1 XII. Chartier chapter heading (see Introduction p. 62): "Εκαστα τὰ τὴν θηριακὴν συντιθέμενα ἀκριβῶς ἐξεταστέον. καὶ τὴν Ἀνδρομάχου γραφὴν προκριτέον.

p. 124) 7 The overall sense of this passage appears clear. The hunters who wish to show off their skill catch snakes at a time of year when their poison is not strong, overfeed them with the wrong food and force them to bite meat repeatedly so that their venom is drawn, and then feed them barley cakes to block up their poison ducts, all this with a view to deceiving "the onlookers" ( $\tau o \dot{\upsilon} \varsigma \dot{\upsilon} \rho \hat{\omega} \tau \alpha \varsigma$ , referred to twice) and causing them amazement ( $\dot{\omega} \varsigma \theta \alpha \upsilon \mu \dot{\alpha} \zeta \varepsilon \upsilon \pi \dot{\alpha} \upsilon \upsilon \dot{\upsilon} \varsigma \dot{\upsilon} \rho \hat{\omega} \tau \alpha \varsigma$ ). 'The obvious conclusion is that the hunters are showing off a supposed immunity to snakebite. A special relationship with snakes was ascribed to various tribes—the Psylli, Marsi and Ophiogenes according to Pliny *NH* XXVIII 30.1—mainly the ability to cure snake bite, but Pliny also implies immunity in an anecdote about one of the Ophiogenes. Galen describes an encounter with the Marsi at *SMT* XI: XII 316.5 ff. and suspects them of lying to him:  $\dot{\upsilon} \mu \dot{\eta} \nu \check{\epsilon} \chi \omega \beta \epsilon \beta \alpha (\omega \varsigma \epsilon i \pi \epsilon i \nu \epsilon i \tau' \dot{\alpha} \lambda \eta \theta \epsilon \upsilon \upsilon \sigma i \tau \delta \tau \omega \epsilon i \tau \epsilon \kappa \alpha i \psi \epsilon \upsilon \delta \upsilon \tau \alpha \tau \alpha \tau n . 316.13–14.$ 

p. 124) 7–9 καὶ μάλισθ' ὅσοι καὶ φάρμακά τινα πρὸς τὰ τοιαῦτα εὑρίσκειν ἐπαγγέλλονται, τὸ μὲν ἔχειν τὰ φάρμακα ψεύδονται. οὐ γὰρ εὕρομέν ποτε ἡμεῖς αὐτοὺς ἔχοντας] For the proposition that professional snake-hunters have their own drug-lore cf. *Loc. Aff.* V:VIII 355.5–11 where a snake-catcher from the imperial

household treats himself for snakebite with one of his own customary papμάχα, which turns his skin green. Galen gives him theriac which restores his normal colour. The text does not say that the theriac cures the snakebite (as opposed to restoring the natural colour), leaving open the possibility that the snake-catcher's own remedy was effective: δηχθείς γοῦν τις τῶν αὐτοκρατορικῶν οἰκετῶν, οἶς ἔργον ἐστὶν ἐχίδνας θηρεύειν, ἄχρι μέν τινος χρόνου τῶν συνηθῶν ἑαυτῷ φαρμάκων ἔπινέν τι, μεταβαλλούσης δ' αὐτῶ τῆς χροιᾶς ὅλης, ὡς γενέσθαι πρασοειδῆ, προσελθών ήμιν ἕκαστά τε διηγήσατο, καὶ πίνων τῆς θηριακῆς ἀντιδότου τάχιστα τὴν κατὰ φύσιν ἀνεκτήσατο χροιάν. The construction here is "they boast that they find drugs suitable for such things" i.e. presumably to confer immunity from snakebite. The reference of  $\pi\rho\delta\varsigma$  từ τοιαῦτα is not at first clear but the argument carries on "but in fact they attain their ends by wrongly feeding the snakes etc." implying that the effect of that misfeeding is the same as the effect which the hunters claim to produce by virtue of  $\tau \dot{\alpha} \phi \dot{\alpha} \rho \mu \alpha \varkappa \alpha$ . It is not clear whether the pretence of immunity is merely introduced as evidence of the dishonesty in general of snake hunters, or whether it is directly relevant to the quality of theriac because the hunters subsequently sell, for use in the manufacture of theriac, snakes which have been used in the demonstrations of immunity.

p. 124) 17 An abrupt change of subject from fraudulent snake catchers to inexperience over drugs. Cf. *Ant*. I: XIV 5.13–13.16 for a discussion of the importance of practical experience in recognising and assessing the quality of drugs.

## p. 124) 17–18 ώς ἔφην, ἀπειρία οὐκ ἔστιν ὀλίγη] cf. p. 124. l. 6 above

p. 124) 19 Cinnamon and cassia frequently occur in conjunction with one another in recipes in Greek and Roman medical sources: e.g. Hp. *Nat.Mul.* 34.10–11, *Mul.* 181.4, Dioscorides *de Materia Medica* V 39 2 3, Pliny *NH* XIII 10.5–11.1 Celsus *de Medicina* 3.21.7.4–5. Herodotus III 107.1–3 puts cassia and cinnamon among the five spices endemic to Arabia: Πρὸς δ' αὖ μεσαμβρίης ἐσχάτη Ἀραβίη τῶν οἰχεομένων χωρέων ἐστί· ἐν δὲ ταύτῃ λιβανωτός τέ ἐστι μούνῃ χωρέων πασέων φυόμενος καὶ σμύρνῃ καὶ κασίῃ καὶ κινάμωμον καὶ λήδανον. Hdt. III 11.1–112.1 for his account of how birds collect the cinnamon from the unknown country where it grows and build nests of it in Arabia; Pliny *NH* XII 85.1–86.1 recounts and rejects this story, saying that the merchants tell these stories to increase their prices—"his commentis augentes rerum pretia."

Galen discusses the relationship between cassia and cinnamon in *Ant.*; at *Ant.* I: XIV 24.4–9 cinnamon is privileged as the most important ingredient of expensive complex drugs: Φιλώνειον μέν οὖν τις ἀντίδοτον ἤ τινα ἄλλην τῶν εὐτελῶν συντιθεὶς, οὐ πάνυ τι δεῖται τῶν εἰς ἄκρον ἀρίστων φαρμάκων. εἰ δὲ τὴν

Μιθριδάτειον ἢ τὴν θηριακὴν ἤ τινα ἄλλην τῶν πολυμιγμάτων τε καὶ κιννάμωμον ἐχουσῶν συντιθείη, πάντων τῶν ἀρίστων δεῖται φαρμάκων. Cassia and cinnamon are so closely related that Galen has seen cinnamon shoots growing from a cassia bush: Ant. I: XIV 56.2–7 ἐθεασάμην γὰρ ἤδη πολλάκις ὑψηλῆς καὶ εὐθαλοῦς κασσίας ὡς εἰς θάμνου μέγεθος ἀνήκειν ἀκρέμονάς τινας ἀκριβῶς ὁμοίους κινναμώμῷ κατά τε τὴν ὄψιν καὶ τοῦ φλοιοῦ τὴν λεπτότητα, καὶ πρὸς τούτοις ἔτι τὰ βεβαιότατα γνωρίσματα κινναμώμου διὰ τῆς γεύσεώς τε καὶ ὀσφρήσεως γινόμενα. Distinguishing between these closely related drugs is like telling the difference between identical twins—Ant. I: XIV 56.15–57.1 καθάπερ γε ἐπὶ τῶν ὁμοίων ἀλλήλοις παι-δαρίων διδύμων οἱ μὲν ἀήθεις ὄντες οὐ δύνανται διακρίνειν τὸ ἕτερον ἀπὸ τοῦ ἑτέρου, ῥάστη δὲ ἡ διάγνωσις γίνεται τοῖς ὑμοδιαίτοις, οὕτως ἔχει κἀπὶ τῶν φαρμάκων ἁπάν-των.

The identity of cassia and cinnamon is to this day fraught with confusion. Evans (2009) 283 states that true cinnamon is *Cinnamomum verum* Presl. of which two subspecies exist and that "Many other varieties (about 23) have been described and exist wild in Sri Lanka and southern India; most of these, however, on current taxonomic grounds, represent other species". What is sold in London as cassia bark is the bark of *Cinnamomum cassia* from China; it is so similar to cinnamon bark that thin layer chromatography has been used to distinguish between them (Evans (2009) 285).

The distinctions drawn in *Ther.Pis*. are more elaborate than those in *Ant*. I; *Ther.Pis*. refers to ψευδοκιννάμωμον (mentioned once elsewhere in Galen at *SMT* VII: XII 26.12), ξυλοκιννάμωμον (mentioned once elsewhere in Galen at *Comp. Med. Loc.* VIII: XIII 185.4) and ψευδοκασσία (not mentioned elsewhere in Galen) rather than simply to distinguishing κιννάμωμον from κασσία. The passage is however entirely consistent with *Ant*. I.

p. 126) 3 cf. Dioscorides *de Materia Medica* I 14 κιναμώμου ἐστὶ πλείονα εἴδη όνομαζόμενα ἐπιχωρίως. διαφέρει δὲ τὸ Μόσυλον διὰ τὸ σώζειν ποσὴν ἐμφέρειαν πρὸς τὴν Μοσυλῖτιν καλουμένην κασσίαν. Μόσυλον or Μόσσυλον is a Red Sea port mentioned in the *Periplus maris Erythraei* (ed. Casson Princeton (1989) 10.97, 11.104).

p. 126) 12 γιζι: A good reading preserved by the Arabic text جيزي alone; ζιγγίβερ in the Greek tradition is an attempt to make sense of an unfamiliar word. cf. *Ant*. I: XIV 72.14–73.2 τούτων δ' άπάντων ών περι κασσίας εἶπον ἀναγκαιότατόν ἐστι διορίσασθαι ποίαν ἐμβλητέον ἐστι κασσίαν, ἐπειδὴ τὴν μὲν Γιζι μάλιστα ἐπαινοῦσιν, ἐφεξῆς δὲ τὴν μοτὼ καλουμένην, εἰσι δὲ οι και τὴν ἀρηβὼ και τὴν δαφνίτιν. ὅτι μὲν οὖν ἡ Γιζι παραπλήσιον κινναμώμῳ κατὰ πάντα ἐστιν εἴρηταί μοι και πρόσθεν. cf. also Periplus maris Erythraei 12 117–118 (γίζειρ) Dsc. de Materia Medica I 13 (1).1–10: κασσίας δέ ἐστι πλείονα εἴδη περὶ τὴν ἀρωματοφόρον Ἀραβίαν γεννώμενα· ἔχει δὲ ῥάβδον παχύφλοιον, φύλλα δὲ ὡς πεπέρεως. ἐκλέγου δὲ τὴν ἔγκιρρον, εὔχρουν, κοραλλίζουσαν, στενήν, λείαν, μακρὰν καὶ παχεῖαν τοῖς συριγγίοις [πλήρη], δηκτικὴν ἐν τῇ γεύσει καὶ στύφουσαν μετὰ ποσῆς πυρώσεως, ἀρωματίζουσαν, οἰνίζουσαν τῇ ὀσμ〗, ἡ δὲ τοιαὐτῃ ὑπὸ τῶν ἐπιχωρίων ἀχυ καλεῖται, δαφνῖτις δὲ προσαγορεύεται ὑπὸ τῶν ἐν Ἀλεξανδρεία ἐμπόρων. πρὸ δὲ ταύτῃς ἐστὶν ἡ μέλαινα καὶ ἐμπόρφυρος, παχεῖα, γίζιρ καλουμένῃ, ῥοδίζουσα τῇ ὀσμῷ, μάλιστα πρὸς τὴν ἰατρικὴν τέχνῃν εὔθετος ... It appears possible from the shared vocabulary (ἀρωματίζουσαν, οἰνίζουσαν, ῥοδίζουσα) that *Ther.Pis*. borrows from Dioscorides here.

p. 126) 14 cf. San. Tu. IV: VI 268.13–270.7 for a discussion of how to tell long pepper from fraudulent substitutes and for Galen's explanation that he gives instructions on how to detect fraudulent simples when writing not for the medical profession but for amateur  $\varphi$ tλιάτρους (269.10).

p. 126) 21 ίνα μή μακρόν ήμιν τὸ βιβλίον γένηται: cf. p. 110. l. 20 and n.

p. 126) 24 For Andromachus see p. 66. l. 10 and n.

p. 126) 25 I have printed the recipe as it appears in L (except for my conjecture στάχυος νάρδου for στάχυος in LNY) and reported variants in Q in the apparatus. Versions of the recipe appear in the Andromachus poem itself, in the prose version attributed to Andromachus the Younger (Ant. I: XIV 42.10-43.17) and in the pseudo-Galenic Theriac to Pamphilianus XIV 308.2-309.4. The printer's copies of *Ant*. and *Theriac to Pamphilianus* are both in Q = Parisinus 2164: (in Diels (1906) 99 under "Antidotes" Parisin. 2664 is an error for Parisin. 2164). The lists are close in both ingredients and quantities, and that in Q as emended is closer to the Arabic than to L. As the emendations within Q which bring it closer to the Arabic in order seem to have no other function it seems that he must be emending by reference to another version of the list. For instance he moves ῥήου from its original position corresponding to L to a new position corresponding to the Arabic although the move makes no other difference; he moves κρόκου to a position corresponding to the Arabic with the effect of changing the quantities from 4 to 6 drachms; through apparent oversight he deletes axopou as part of the same move but neglects to reinsert it so that it is lost from his version of the recipe; he moves black pepper from its position corresponding to L to its position corresponding to the Arabic and as a consequence changes the quantity from 24 drachms as in L to 6 as in the Arabic. This error arises from a misreading of μακρόν as μέλανον where the poem of Andromachus senior has δολιχόν, presumably adopted for the sake of the

metre as an equivalent to μακρόν. Galen points out the discrepancy between the verse and prose recipes (the prose recipe of Andromachus the younger in this case agreeing with L and not Q) in *Ant*. I: XIV 44.10–15: ἐν ἑνὶ μέντοι διαφωνεῖ πρὸς τὴν ἔμμετρον γραφὴν τῷ τὴν ἔμμετρον δραχμὰς κδ'. ἔχειν τοῦ μακροῦ πεπέρεως, τὴν δὲ πεζῆ γεγραμμένην στ'. ἐπεὶ δ', ὡς ἔφην, πολλὰ τῶν ἀντιγράφων ἡμαρτημένας ἔχει τὰς ποσότητας τῶν φαρμάκων, διὰ τοῦτο α'. μὲν ὁλογραμμάτως αὐτὰς ἔγραψα, μιμησάμενος τὸν Μενεκράτην. Most strikingly he reverses the order of ἄμμεως, σαγαπηνοῦ (the order in L, in the Andromachus poem, in the Arabic and in Q<sup>1</sup>) to σαγαπηνοῦ, ἄμμεως. This alteration corresponds to none of the extant versions of the recipe.

p. 126) 26 'Artískur  $\theta\eta\rho\iota\alpha\kappa\hat\omega\nu]$  The recipe for these is given in the following chapter.

p. 126) 26 ἀρτίσκων σκιλλητικών] The recipe for these is given in the following chapter.

p. 128) 1 ήδυχρόου μάγματος] The recipe for this is given in the following chapter.

p. 128) 4 ναρδοστάχυος: L has στάχυος, Q<sup>2</sup> νάρδου. νάρδος without qualification means *Nardostachys Jatamansi*, spikenard, as does ναρδοστάχυς (Durling 1993 s.v.) and the Arabic text confirms that this is the plant meant here. Q's νάρδου might be good but it is awkward having νάρδου Κελτικής later in the recipe (spikenard can be called νάρδος Ίνδική to make the distinction clear). There is another plant called στάχυς—*Stachys Germanica*, base horehound (Durling 1993 s.v. and cf. p. 160. l. 6); however it occurs infrequently in Galen and we know that Andromachus' theriac requires spikenard from *Ant*. I: XIV 73.15–18 where the etymology is also explained: ἐφεξῆς δὲ τῆς προγεγραμμένης ὁ Ἀνδρόμαχος Ίνδικὴν νάρδον κελεύει βαλεῖν, ἥνπερ καὶ στάχυν ὀνομάζομεν νάρδου, καίτοι ῥίζαν οὖσαν, ἀπὸ τῆς πρὸς τοὺς ἀστάχυας ὁμοιότητος κατὰ τὴν μορφὴν. The likeliest explanation of the reading in L is that it is the remnants of ναρδοστάχυος *vel sim*.

p. 128) 13 Xenocrates: Xenocrates of Aphrodisias ca. 50–70 AD (for the date δ Ξενοκράτης, ἄνθρωπος οὐ πάλαι γεγονώς, ἀλλὰ κατὰ τοὺς πάππους ἡμῶν SMT X: XII 248.10–11); attacked by Galen for witchcraft SMT VI:XI 793.13–15 and for recommending foul remedies such as cannibalism SMT X: XII 248.8–17 but his recipes are quoted e.g. Ant. II: XIV 164.18 p. 128) 16 Damocrates: Servilius Damocrates mid-late first century AD author of pharmaceutical works in iambic pentameters much cited by Galen, including one of 173 lines on theriac quoted in *Ant.* I: XIV 90.2–99.13, giving a recipe virtually identical to Andromachus' but with differences which are highlighted both in the poem and by Galen at *Ant.* I: XIV 99.14–100.3: "Οτι μὲν οὖν διαφωνοῦσί τινα πρὸς τὸν Ἀνδρόμαχον, Δαμοκράτης αὐτὸς ἐδήλωσεν εἰπὼν,

Τινὲς δὲ τούτων οὐ καλῶς ἀνὰ τέτταρας, καὶ πάλιν. Τινὲς δ' ἀνὰ δύο φασὶν, ὅπερ οὐ βούλομαι, ὅτι δὲ καὶ σαφέστερον εἴρηται τῶν ὑπὸ Δαμοκράτους γε- γραμμένων, καὶ τοῦτο πρόδηλον.

p. 128) 22 Magnus: his recipe for theriac cited six times in this passage. Otherwise there is no way to distinguish him from the writer or writers named Magnus whose recipes are quoted *Comp. Med. Gen.* V: XIII 829.13, *Comp. Med. Loc.* V: XII 844.8.

p. 128) 22 ό καθ' ήμας ἀρχίατρος γενόμενος] καθ' ήμας here "in our time" rather than "in my home Asia as opposed to Rome" as it can also mean in Galen; cf. below Δημήτριος ... καὶ αὐτὸς καθ' ἡμᾶς ἀρχιατρὸς γενόμενος: Demetrius was Galen's immediate predecessor as preparer of theriac for Marcus Aurelius. dpxiατρός—physician to the emperor. The word has a complex history and also has the quite separate meaning of ἀρχιατρὸς πόλεως, chief municipal physician, especially in Eastern inscriptions: see Nutton (1977). The first literary instance of the word is in Erotian's dedication of his collection of Hippocratic Terms to Andromachus as ἀρχιατρὲ Ἀνδρόμαχε (Erot. 29.3). The word occurs four times in Galen, twice here applied to Magnus and Demetrius (and cf. the heading of chapter 6 Άνδρομαχου Πρεσβυτέρου Νέρωνος ἀρχιατροῦ although the chapter headings are not necessarily by Galen) and twice in the first chapter of Ant. where it is applied to Andromachus as inventor Ant. I: XIV 2.14 and Demetrius as subsequent imperial pharmacist Ant. I: XIV 4.13-14. In both cases the concept of the ἀρχιατρός is intimately linked with the transmission of the canonical recipe for theriac and with the concept of kingship (other than the apyratpoi the individuals mentioned in Antidotes I ch. 1 are Mithridates, Attalus, Nero and Marcus Aurelius). In both cases (Ther.Pis. and Ant.) we also find minute variations in the quantities of ingredients carefully recorded. The concept of disagreement among written authorities over the composition of a drug is largely confined to the discussion of theriac in these two works and to the plaster called ή Ίκεσίου or Ίκέσιος (sc. ἔμπλαστρος) (Comp. Med. Gen. V: XIII 780.16-

17) where the competing recipes of Crito, Heras Heracleides and Andromachus are exhaustively reviewed and compared (*Comp. Med. Gen.* V passim and esp. the admission that the differences can be too trivial to matter *Comp. Med. Gen.* V: XIII 814.9–12 διὸ περιττὸν ἔδοξέ μοι μνημονεύειν αὐτῶν. σκευαστέον γάρ ἐστι τὸ φάρμακον ὡς Ἡρακλείδης ἐκέλευσεν ἢ ὡς Ἡρας, βραχυτάτη γὰρ ἡ διαφορὰ παρ' αὐτοῖς ἐστι. In both cases Galen seems to be motivated by the mere existence of competing versions of the canonical recipe to distinguish between them rather than by the pharmaceutical importance of the differences.)

For the accent on the last syllable cf. Herodian *Gramm*. I 229; the mss. and the Aldine and Cratander editions have it on the last syllable; Chartier and Kühn wrongly print  $\dot{\alpha}$  px $(\alpha\tau\rho\sigma\varsigma$  in *Ther.Pis*. but not in *Ant*.

p. 130) 6 Demetrius: Galen's predecessor as manufacturer of theriac for Marcus Aurelius, dying in 168 while Marcus Aurelius is away fighting the Germanic wars: *Ant.* I: XIV 4.11–5.2.

p. 130) 15 Chartier chapter heading (see Introduction p. 62): Πῶς κατασκευαστέοι οἵ τε ἡδύχροοι, σκιλλητικοὶ καὶ θηριακοὶ ἀρτίσκοι.

p. 130) 15–16 ήδυχρόου μάγματος] I have translated "perfume solids". This substance is mentioned only in Galen and in the Andromachus poem (p. 96 l. 26), and this is the only extant passage giving any information as to its nature.

p. 130) 18 μαστίχης: the Greek sources all have the impossible ἀσίας. Nicc. and the Arabic both have masticis مصطکی. This creates a doublet in the Greek because all the Greek sources have mastic listed last but one in the list of ingredients where the Arabic has cinnamon سليخة. The Latin has an abbreviated list of only 10 ingredients as against sixteen in the Greek: corticis aspalii, calami aromatici 6 dr. each; squinati 12 dr. fou, costi, assari, cilobalsami, masticis 6 dr. each cinnamomi 24 dr. crocus 2 dr. I have corrected to xασσίας which occurs in the Arabic list of sotherwise missing from the Greek.

p. 130) 19 μαλαβάθρου φύλλων: the first evidence for this reading is the Froben Latin text of 1549 (foliorum malabathri). L Q and the Aldine and Cratander editions have φύλλα (without μαλαβάθρου) which is grammatically impossible—a genitive is required—and unacceptably vague. The Arabic is of no assistance the editor supplies μαλαβάθρου φύλλων solely on the (circular) evidence of this passage as printed in Kühn. Whatever the provenance of Froben's reading it is clearly preferable to φύλλα. p. 130) 23 There are three recipes for squill pastilles in *Ant.*, of which the recipe in the author's own voice (*Ant.* I: XIV 50.1–51.6) requires the squills to be coated in πυρῶν νέων καλλίστων, the finest new wheat flour, referred to two lines later as σταίς, Damocrates' verse (*Ant.* I: XIV 94.17–95.10) requires σταίς and Crito's recipe (*Ant.* I: XIV 103.17–104.9) requires coating with γύψω η πηλῶ, gypsum or clay. ζύμη is translated "leaven" by LSJ clearly meaning some form of dough with leavening agent in it. For a similar cooking technique cf *Alim. Fac.* I: VI 476.7–10—to administer scammony remove core from quince and fill hole with scammony, wrap quince in ζύμη, roast, feed quince flesh to patient.

p. 130) 23–24 μὴ ὥς τινες πηλῷ, ῥυπαρὸν γὰρ εἶναί μοι δοκεῖ, ἀλλὰ ζύμῃ,] This stipulation is ignored by Nicc. where the instruction reads "Squillam recentem non valde magnam circumtege cum luto ...".

p. 132) 1 The final syllable of ἀπτήσῃ is obscured by a blot in L; Y has ἀπτή followed by a wider than usual space between words suggesting that he is following L directly or via a different branch from M N and Q<sup>1</sup> who have ἀπτήσῃ, presumably correctly, whether by conjecture or because they are from a branch in which the initial copy of L was made before the text was blotted.

p. 132) 1 There is nothing wrong with the reading xaxxá $\beta$ oiç in codd. and the Aldine; the word xaxxá $\beta\eta/xaxá\beta\eta/xaxá\betaoc$  occurs elsewhere in Galen—not xaxxá $\beta$ oc but that may be a matter of scribal preference. Cratander seems to have printed x $\lambda$ i $\beta$ ávoic as a gloss which then gets incorporated into the text by Chartier. Y has a misreading of L's cursive  $\beta$  as  $\mu$ .

p. 132) 6 cf. Ant. I: XIV 50.13–51.2 εὕδηλον δ' ὅτι σεσῆσθαι τοῦτο χρὴ λεπτῷ κοσκίνῳ, καὶ μετὰ ταῦτα ἀκριβῶς λελειῶσθαι, τῷ σταθμῷ δὲ ἡμιολίαν εἶναι χρὴ τὴν σκίλλαν. λέγω δὲ ἡμιολίαν, ὡς δὑο μὲν ἀλεύρου μοίρας εἶναι, τρεῖς δὲ τῆς σκίλλης. ὡς δὲ ταὐτὸν λέγων ὁ νεώτερος Ἀνδρόμαχος, οὐκ οἶδεν ὅπως π'. μὲν εἶναι δραχμὰς βούλεται τοῦ ὀροβίνου ἀλεύρου, τῆς σκίλλης δὲ ρκ'. ἤρκει γὰρ εἰπεῖν ἡμιόλιον. The passage in Ant. is about Andromachus' terminology rather than the substance of his recipe. Nevertheless the points in common between the two passages suggest either common authorship or a deliberate attempt to give the appearance of common authorship. Crito's recipe also given in Ant. I: XIV 104.7–8 requires one part vetch flour to two of squill.

p. 132) 9 :-  $\pi\epsilon\rho$ ì tŵν εχίδνων:-] This heading appears in the text (not in the margin) in L but is omitted by  $Q^1$ 

p. 132) 12 L leaves a space one or two words long which is reproduced in M N, Y and Q<sup>1</sup>. In Q the space is filled with the word  $\check{e}\alpha\rho\sigma\varsigma$  in a different hand from the main body of the text. The Arabic agrees that the time to catch snakes is في أول.

The reluctance of L to reproduce a reading ἔαρος in his exemplar (if that is what he is doing) is well-founded. The passage goes on to say that the snakes need time after awaking from hibernation to enjoy the fresh air and feed themselves up. As they do not emerge from hibernation till spring, catching them the beginning of spring does not allow them this time. Ant. I: XIV 45.4-14 is clear and specific: Τὰς ἐχίδνας οὐχ ὥσπερ ἔνιοι μέσου θέρους, οὐ μὴν οὐδ' ἄρτι τής φωλεάς παυσαμένας θηρεύειν προσήκεν. ἐν μὲν γὰρ τῷ θέρει διψώδης ἡ σὰρξ αὐτῶν ἐστιν, ἐπὶ δὲ τῇ φωλεῷ ξῃρὰ καὶ ψυχρὰ καὶ ἄτροφος. κάλλιστος οὖν ἐστι καιρὸς ό μεταξύ τούτων, ὃν καὶ αὐτὸς ὁ Ἀνδρόμαχος ἐδήλωσεν, ἡνίκα καὶ οἱ τῷ Διονύσῷ βακχεύοντες εἰώθασι διασπậν τὰς ἐχίδνας, παυομένου μὲν τοῦ ἦρος, οὔπω δ' ἠργμένου θέρους, ἢ εἰ χειμέριον ἐπὶ πολὺ τὸ ἔαρ γίγνοιτο, κατὰ τὴν ἀρχὴν τοῦ θέρους, οὐ κατὰ πολύ τής των πλειάδων ἐπιτολής. There is however further uncertainty here: this passage of Ant. occurs three pages after the Andromachus poem itself, the intervening pages containing the prose version of the recipe, attributed to Andromachus the younger, which has nothing to say about catching snakes. ον καὶ αὐτὸς ὁ Ἀνδρόμαχος ἐδήλωσε ought therefore to refer to the poem, which however appears to suggest catching vipers in the spring (above p. 94. l. 11). The poem speaks of the vipers in the spring "seeking the seed of green fennel on the high-piled threshing floor" which is difficult for spring since fennel sets seed after flowering in summer (Grieve (1931) s.v. Fennel). The threshing-floor being piled high is of course also difficult for spring given a typical harvest date of the rising of the Pleiades at the beginning of May (Hesiod *Op.* 383–384). Euripides can however speak of corn being cut in a "spring meadow" Supp. 447-449:

πῶς οὖν ἔτ' ἀν γένοιτ' ἀν ἰσχυρὰ πόλις ὅταν τις ὡς λειμῶνος ἠρινοῦ στάχυν τομαῖς ἀφαιρῆι κἀπολωτίζηι νέους;

It is possible that in the Mediterranean fennel flowers that much earlier than further North and can be setting seed at the end of spring, as liberally defined. Andromachus is apparently imitating two passages of Nicander which have snakes feeding on the young shoots, rather than the seeds, of fennel after awakening from hibernation: *Theriaca* 32–34, 389–391 and cf. Pliny *NH* VIII 99.1–7, XX 254.1–4 for confirmation that snakes use fennel juice to slough their skins and to sharpen their eyesight immediately on emerging from hibernation

in the spring. Skin: Pliny *NH* VIII 99.1–3 anguis, hiberno situ membrana corporis obducta, feniculi suco inpedimentum illud exuit nitidusque vernat. Eyesight: Pliny *NH* VIII 99.5–7 "idem hiberna latebra visu obscurato maratho herbae se adfricans oculos inunguit ac refovet;" cf. Andromachus 82–84

διζόμενοι χλοεροῦ σπέρμα λαβεῖν μαράθου ὀξυτέρην τὸ τίθησιν ἐφ' ἑρπηστῆρσιν ὀπωπήν πιαῖνον δειλοῖς ἄλγεα βουπελάταις.

The poem would therefore provide support of a reading of  $\check{\epsilon}\alpha\rho\sigma\varsigma$  here were that reading not excluded by the immediate context.

A separate passage in Ant. I: XIV 103.6–14 sets out the views of Crito in favour of catching snakes either at the end of spring or in late summer at the time of the grape harvest:  $\pi\epsilon\rho$ i tà teleutaîa toû ἕαρος κατὰ tò θέρος, ἢ tῷ τρυγητῷ κεleύει συλλέγειν (lines 6–8). Similarly SMT XI: XII 318.14–16 τούτους (sc. ἀρτίσκους) μέν οὖν εἰσβάλλοντος τοῦ θέρους σκευάζομεν, ἡνίκα μάλιστα βεltίστη τῶν ἐχιδνῶν ἐστιν ἡ σάρξ.

The other point which may confuse the issue is the statement that the snakes' venom is more  $\pi$ ovnpó $\varsigma$  immediately on wakening. The theory that the snake collects it, συνάγει, over the winter so that it has a high concentration in spring is plausible enough. It does however conflict at least at first sight with the passage above at p. 124. l. 9 ff. where the deceitful snake catchers capture snakes οὐ τῷ δέοντι καιρῷ, ἀλλὰ μετὰ πολὺν τῆς φωλειᾶς τὸν χρόνον, ὅτε μηκέτ' έστιν ἀχμαία. As the text immediately following is all about how the hunters contrive to reduce the snakes' ability to poison by misfeeding them, making them bite repeatedly, blocking their venom ducts and so forth, it is possible to read the passage as implying that catching them too early in the season has the same effect. The passage does not in fact carry any such implication: the complaint is that the snakes are no longer ἀχμαῖα—presumably "no longer" from the perspective of the previous summer rather than "not yet" from the perspective of the coming one. The Arabic text says the opposite, that the snakes' venom is weakened by hibernation: Während sie in ihren Löchern hausen, nehmen sie keine gefährliche Nahrung zu sich, und ihre schädliche kraft is dann schwach. But πονηρός must mean more, not less, harmful and theriac does not depend for its efficacy on potent venom-on the contrary the viper is used in preference to other snakes because it is less venomous than they are (Chapter VIII) and its head is removed prior to cooking because of the venom it contains (Chapter IX). Niccolo's translation agrees that hibernation make the snakes poison more, not less, effective: non enim habent tunc ita malignum venenum quam cum manent intus.

The source of all the confusion is apparently the ambiguity in dating in the Andromachus poem which has the vipers waking in midsummer. This passage clearly requires a date end of spring/beginning of summer for catching the snakes and the author of *Ant*. clearly both accepts those dates and regards them as compatible with the Andromachus poem.

p. 132) 12 Q<sup>2</sup> changes a series of singular verbs into plurals. Formally speaking he is right in that the subject of the verbs is al έχιδναι implied by αὐτὰς τὰς ἐχίδνας above. However in the next sentence the implied subject is in the neuter plural, presumably reflecting the author's habit of thinking of vipers as τὰ θηρία, an expression he uses for them much more often than al ἔχιδναι. They do in fact occur expressly as ταῦτα τὰ θηρία as the subject of the next sentence but one. What seems to have happened is that the verbs have been attracted into agreeing in number with τὰ θηρία and should therefore be allowed to stand in the singular. As for the mood ὅταν requires the subjunctive as all the codd. agree for παύηται/παύωνται. It also requires a negative μη rather than οὐ, a rule which Galen elsewhere does not break. I have therefore taken ὅταν to govern παύηται/παύωνται only and the following verbs to follow on paratactically.

p. 132) 13 oüxé $\theta$ '] can only mean "no longer". Chartier mistranslates "non adhuc", not yet, reflecting his uncertainty over the passage as a whole.

p. 132) 17 καὶ τῷ χρόνῷ τῆς φωλείας μᾶλλον ἤπερ τῆς ἡλικίας τοῦ ζώου γῆρας τυγχάνον: The wording is repetitive but makes sense and there is no need to suspect dittography. τυγχάνων = simply ὤν, being. Chartier emends to τυγχάνον presumably to agree with γῆρας but the true subject is ἐπίπαγός τις παχύτατος, and though τυγχάνων could quite easily have been attracted into the neuter there are no grounds for emending.

p. 132) 17 L has  $\dot{\epsilon}\dot{\alpha}\nu$  (accented thus) "if" for  $\dot{\epsilon}\hat{\alpha}\nu$  "to allow". Chartier's iota subscript is incorrect in the infinitive of contracted verbs in  $\alpha$  (Morwood 2001 74).

p. 132) 18 L has ἀπολαύση τὲ τοῦ ἀέρος καὶ τραφῆν τὴν συνήθη νομήν. Q<sup>2</sup> emends ἀπολαύση to ἀπολαύσαι and τραφῆν (a vox nihili) to τραφῆναι but leaves τὴν συνήθη νομήν in the accusative which appears unacceptable—on normal principles τραφῆναι, to be nourished, requires the agent of nourishment—the food to be in the dative. However there is a parallel in Galen: εἰ γὰρ οὕτως ἔτυχε κοιμηθέντος καλῶς αὐτοῦ καὶ καταιωνηθέντος ἐφεξῆς καὶ καταπλασθέντος ἐπὶ τούτῳ, κἄπειτα κλυσθέντος ἢ αὐτομάτως τῆς γαστρὸς ἐνδούσης, εἶτα καὶ τραφέντος τοιάσδε τινὰς τροφὰς, κἀπὶ τούτοις ἅπασιν ὡφεληθέντος ἤ βλαβέντος οὐ ῥάδιον εἰπεῖν διὰ τί

τών γεγενημένων συνέβη τὸν ἄρρωστον ὡφεληθῆναι ἢ βλαβῆναι. *Hipp. Aph.* I; XVIIb 354.15–355.2 and cf. Justin Martyr *Dialogus cum Tryphone* 57.2.3–7: οἴτινες ἄγγελοι τῷ ὄντι ἦσαν καὶ ἐν τοῖς οὐρανοῖς, δῆλόν ἐστιν ἡμῖν, τρεφόμενοι, κἂν μὴ ὁμοίαν τροφὴν ἦπερ οἱ ἄνθρωποι χρώμεθα τρέφονται (περὶ γὰρ τῆς τροφῆς τοῦ μάννα, ῆν ἐτράφησαν οἱ πατέρες ὑμῶν ἐν τῆ ἐρήμῳ, ἡ γραφὴ οὕτω λέγει, ὅτι ἄρτον ἀγγέλων ἔφαγον), illustrating that the usage is not confined to cases where the accusative is cognate. Q<sup>2</sup>'s emendations therefore appear reasonable. L's text, in particular τραφῆν, remains puzzling however; it is not impossible that we ought to read τροφῆν for τραφῆν and change νομήν to νέμεσθαι.

p. 132) 21 τὰς βουπρήστεις καὶ κανθαρίδας καὶ τὰς καλουμένας πιτυοκάμπας: respectively two kinds of beetle and a woolly caterpillar accordiing to LSJ s.vv. The three species are described in sequence in the order κανθαρίς—βούπρηστις πιτυοκάμπη as ingredients of drugs in SMT XI: XII 363.14–364.19. All snakes are in reality carnivorous, although the belief that they also eat grass is stated by Aristotle *Historia Animalium* 594a4–6: Τὰ δὲ φολιδωτὰ τῶν ζώων, οἶον σαῦρός τε καὶ τὰ τετράποδα τἆλλα καὶ οἱ ὄφεις, παμφάγα ἐστίν· καὶ γὰρ σαρκοφάγα, καὶ πόαν ἐσθίουσιν. Of the three species of viper common in Italy, *Vipera berus, Vipera aspis* and *Vipera ursinii*, the first two hardly ever eat insects: *Vipera ursinii* lives almost exclusively on insects but confines itself to the orthoptera (Filippi and Luiselli 2004) which do not include any of the three named here. In view of the error over eating plants it seems fruitless to try to identify the viper involved here by its alleged insect eating habits.

p. 132) 21 For the characteristics of vipers cf. Aëtius *Iatricorum* XIII 23.1–23 clearly deriving from this text or from a common source but where the text is descriptive of vipers as a danger rather than prescriptive of them as an ingredient.

p. 134) 5 For confirmation that four fingers' breadth of tail should be cut off cf. *MMG* II: XI 143.15–144.2 χρὴ δὲ ἐσθίειν αὐτὰς οὕτω σκευάζοντας ὡς τοὺς θηριοτρόφους καὶ ἀσπιδοτρόφους Μάρσους ἐθεάσω, πρῶτον μὲν ἀποκοπτομένης τῆς οὐρᾶς καὶ τῆς κεφαλῆς ἄχρι δακτύλων τεττάρων, εἶτα τῶν ἐνδον ἁπάντων ἀφαιρεθέντων καὶ τοῦ δέρματος δηλονότι, εἶθ' ὕδατι τοῦ σώματος αὐτῶν περιπλυθέντος. *Ant*. I: XIV 45.18–46.1 αὕταρκες δ' ἐπὶ τῶν μεγάλων ἐχιδνῶν τὸ ἀφαιρεθησόμενον ἑκατέρωθεν, εἶναι δακτύλων δ'; Andromachus poem above p. 94. l. 20; pseudo-Galen *Theriac* to Pamphilianus XIV 307.9–10; but only three fingers in Damocrates *ap*. Galen *Ant*. I: XIV 93.18–94.2.

p. 134) 16 ἀνήθου μὴ ξηροῦ: an emendation by Q<sup>2</sup> who adds μὴ in the margin and thus reverses the sense of L and brings the text into agreement with the Arabic "not dried", עַאָע, bearing out the theory (above) that Q<sup>2</sup> has access to a version of the theriac recipe which corresponds more closely to the Arabic tradition than to L. There are contradictory passages in *Ant*. as to whether the recipe requires fresh or dried dill: *Ant*. I: XIV 46.2–5 ὅλον δὲ τὸ λοιπὸν σῶμα, τῶν μὲν ἐντέρων ἐξαιρεθέντων, ἀποδαρέντος δὲ τοῦ δέρματος, ὕδατι περιπλύναντα, ἐμβάλλειν κακάβῃ προσήκει καθαρὸν ὕδωρ, καὶ ἀνηθον χλωρὸν, ἀχμάζει γὰρ τηνικαῦτα, clearly implies fresh dill but the Damocrates poem *Ant*. I: XIV 94.3–9 requires dried:

Τοῦτο δὲ ποιεῖν δεῖ προσφάτων ζωσῶν τ' ἔτι, Εἶτα περιδείρας ῥαδίως, ὡς ἐγχέλεις, Ἐκβαλλέ τ' αὐτὸς καὶ τὸ λίπος αὐτῶν ἅπαν, Πλύνας τε καθαρῶς, εἰς λοπάδιον ἐντίθει, Ξηροῦ τ' ἀνήθου σύμμετρον δεσμίδιον, ὙΥδατος δέ τ' ἀρκοῦν παραχέας, ἕψει μέχρι Ἡ σὰρξ ἀποστῇ ῥαδίως τῶν ὀστέων.

The Andromachus poem merely specifies shoots of dill, ἀνήθου Κλώνας: p. 94. l. 25.

p. 136) 1 Chartier chapter heading (see Introduction p. 62): Θηριακής σκευασία, άποθήκη, ήλικία, κρίσις, δόσις.

p. 136) 4 The stipulation of the type of wine to be used presents a variety of problems. The overall sense of the transmitted text appears to be that the wine should be sweet Falernian—not Faustian, but another variety of Falernian which is  $\delta \rho \mu \omega \varsigma$ , pungent. That Faustian is one of a number of varieties of Falernian is consistent with all other mentions of either name in Galen (and elsewhere): *MM* XII: X 832.3–5 ἐπεὶ δὲ καὶ αὐτῶν τῶν Φαλερίνων ὁ μέν τις ἰκανός ἐστι γλυκὺς, ὃν ὀνομάζουσι Φαυστίνον, ὁ δ' ὡς μὲν πρὸς ἐκεῖνον αὐστηρὸς ... Bon. Mal. Succ. VI 801.9–11 ξανθοὶ δὲ καὶ κιρροὶ τινὲς μὲν γλυκεῖς εἰσι μετρίως, ὥσπερ (ὁ) Ἱπποδαμάντειός τε καὶ ὁ Φαυστιανὸς Φαλερίνως, ἐνοι ὅ' οὐδ' ὅλως γλυκεῖς. So Faustian is the sweeter variety of Falernian. it is also apparently δριμύς: *MM* VI: X 405.2–4 ὅσοι δὲ γλυκεῖς τε ἅμα καὶ κιρροὶ τῶν οἴνων εἰσὶν, ὥσπερ ὁ Φαλερίνος, ἀνεπιτήδειοι, δριμεῖς γὰρ ἅπαντες οἱ τοιοῦτοι καὶ πέρα τοῦ μετρίου θερμοί· (This last passage does not expressly refer to ὁ Φαυστιανὸς Φαλερίνος but the quotation directly above from *Bon. Mal. Succ.* makes clear that that is the variety of Falernian under consideration).

Pliny tells us that there are two tripartite schemes for classifying Falernian: "tria eius genera: austerum, dulce, tenue. quidam ita distingunt, summis collibus Caucinum gigni, mediis Faustinianum, imis Falernum." *NH* XIV 63.1–5. Pliny's categories do not map on to Galen's, in that for Galen something can be both δριμύς and γλυχύς (e.g. *MM* VI: X 405.2–4 above), whereas for Pliny tenuis and dulcis vary inversely with each other: Vinum omne dulce minus odoratum; quo tenuius, eo odoratius. *NH* XIV 14.80.1. So the sense of the passage in *Ther.Pis.*, implying that although Faustian is Falernian, and may also be sweet, it is emphatically not δριμύς and not suitable as an ingredient in theriac, is directly contrary to the view generally expressed by Galen. *Ant.* I: XIV 20.7–10 is particularly clear: there are two kinds of Falernian of absolutely equal efficacy (ἀρετή), but the sweeter variety make the drug more palatable, and that variety is the Faustian: δυοῖν δ' ὄντοιν εἰδῶν αὐτοῦ, μηδὲν ἀλλήλων διαφερόντων ἀρετῆ, ήδίονα τὴν ἀντίδοτον ἑ γλυκύτερος ἐργάζεται, καὶ καλοῦσιν αὐτὸν ἰδίως Φαυστιανόν.

The contradiction is striking whether we are dealing with Galen or a conscious imitator of Galen. Some of the text is clearly corrupt:  $\tau \varepsilon \times \alpha \lambda \pi \hat{\alpha} \sigma \kappa [\kappa \alpha \lambda]$ καλούμενος ἄκτος presents the following problems: first, the second καὶ is redundant (possibly resulting from the scribe embarking on the first two letters of καλούμενος with the previous και fresh in his memory); secondly ἄκτος is impossible to make sense of as either a normal adjective or proper name; thirdly the construction  $\pi \hat{\alpha} \sigma_1$  καλούμενος ἄκτος meaning "called ἄκτος by everyone" ("Actum nominatum ab omnibus" Rota "quod omnibus vocatur Actum" Chartier) is difficult. The correct Greek would be ὑπὸ πάντων καλούμενος, a very common kind of construction in Galen and elsewhere; e.g. above p. 112. l. 22 ύπὸ δὲ τῶν ἐπιγωρίων νίκου ἢ νίνου καλουμένου, Alim. Fac. II: VI 609.12-13 Βασιλικά τινες όνομάζουσι κάρυα ταῦτα τὰ νῦν ὑπὸ πάντων ἁπλῶς ὀνομαζόμενα κάρυα. Ι can find no example in any author of an equivalent construction using dative rather than  $\dot{\upsilon}\pi\dot{\upsilon}$  + genitive with καλέω, λέγω, ὀνομάζω; but cf. Temp. I: I 509.1-4 Ότι μέν έκ θερμοῦ καὶ ψυχροῦ καὶ ξηροῦ καὶ ὑγροῦ τὰ τῶν ζώων σώματα κέκραται καὶ ὡς οὐκ ἴση πάντων ἐστὶν ἐν τῇ κράσει μοῖρα, παλαιοῖς ἀνδράσιν ἱκανῶς ἀποδέδεικται φιλοσόφων τε καὶ ἰατρῶν τοῖς ἀρίστοις.

 $Q^2$  marks the passage with asterisks above  $\mu\dot{\eta}$  and after  $\ddot{\alpha}\kappa\tau\sigma\varsigma$ .

Rota and Chartier have tacitly mistranslated the passage to give readings of opposite effect but both consistent with the statement in *Ant*. and elsewhere that Faustian is sweet wine: Rota "Vinum autem illud sit optimum, quale falernum dulce est, quod faustinianum appellant, non autem acre et actum nominatum ab omnibus;" Chartier "Sit autem vinum laudatissimum Phalernum; non dulce Faustianum, sed acre, et quod omnibus vocatur Actum". Given that the Arabic text endorses the apparent meaning of the Greek tradition, and in the absence of any plausible explanation of how the desired meaning can have become corrupted into what appears in the mss., re-writing of the text on this scale is unacceptable. My proposed emendation is intended to preserve consistency with *Ant*. while doing the least possible violence to the text. I propose ἀχρος for ἀχτος on the basis that either it may literally mean "from the top of the mountain" in accordance with Pliny's topographical classification or it may mean metaphorically "the best" (cf. *Ant*. I: XIV 25. 1–7 ὡς οὖν ἐν Ῥώμῃ τῶν ἀρίστων φαρμάχων ἀπάντων εὐπορῆσαι μάλλόν ἐστιν, ἢ κατ' ἀλλο χωρίον, οὕτως ἐν αὐτậ τῇ Ῥώμῃ Καίσαρι σχευάζων τις, ἔτι μάλλον εὐπορεῖ πάντων τῶν εἰς ἀχρον ἀρετῆς ἡκόντων, οἶνου μἐν τοῦ Φαλερίνου καὶ μέλιτος Ύμῃττίου, ὀποβαλσάμου τε τοῦ Συριακοῦ καλουμένου). The word καλούμενος suggests that we have lost a proper name whose remnants are the nonsensical τε καὶ πâσι [καὶ]. Pliny says that Falernian wine from the hilltop (summis collibus) is called Caucinum and I tentatively propose Kαυκῖνος (for the accent see Athenaeus I 48.50–51) ἀχρος as meaning "Caucinian from the top of the hill."

p. 136) 8 a long passage in *Ant*. I: XIV 20.16–23.1 deals with the suitability of honeys of various geographical origins. In particular *Ant*. I: XIV 22.14–23.17 on a honey from near Pergamum which derives its character from the plants the bees feed on—thyme, origanum and cytisus—and *Ant*. I: XIV 25.2–7 for confirmation that Hymettian is the best kind. Honey occurs very frequently in Galen's recipes; it is a drug in its own right (*SMT* VII: XII 70.13–18 describes its properties) but principally important as an excipient. Discussions of the best kind occur only here and in *Ant*. I. There are references to Hymettian honey outside *Ant*. and *Ther.Pis*. at *MM* XIV: X 965.13 and *Comp. Med. Loc.* I: XII 464.6.

p. 136) 10 τὴν ῥητίνην καὶ τὴν χαλβάνην: Respectively resin and "the resinous juice of all-heal, *Ferula galbaniflua*" (LSJ s.v.). LSJ glosses ἑητίνη as "resin of the pine" but in Galen it apparently applies to any tree resin: among other trees the poplar produces it (*SMT* VI: XI 816.13) as does the terebinth (*SMT* VIII: XII 114.6). It may be that ἑητίνη unqualified means pine resin, but note that pine resin is often specified as πευχίνη ἑητίνη even in contexts where no other tree is named e.g. *Comp. Med. Gen.* II: XIII 476.6, and that it often appears next to πίττα in expressions like ἑητίνη καὶ πίττα καὶ ἄσφαλτος (*Temp.* III: I 669.14–15), where πίττα would appear to mean pine resin. Here the Arabic specifies terebinth gum, chai

 $\dot{\rho}$ ητίνη and χαλβάνη frequently appear in Galen as a pair and at the end of a recipe; they are grouped as substances which can be made soft by fire. *Comp. Med. Gen.* II: XIII 629.1–2 διὰ πυρὸς δὲ (sc. τήκεται) πρόπολις, κηρὸς, ῥητίνη, λάδανον, στέαρ, χαλβάνη, in a passage which goes on to specify a combination of terebinth resin and χαλβάνη: *Comp. Med. Gen.* II: XIII 629.8–10 ὀποπάνακα διαλύσας ὄξει λείωσον ἐπὶ πλέον, εἶτα τήξας ἐπὶ πυρὸς πρόπολίν τε καὶ χαλβάνην καὶ ῥητίνην τερμινθίνην μῖξον τῷ ὀποπάνακι.

p. 136) 14 Glass or silver vessels: this point is discussed twice in *Ant*. I; in the authorial voice (for storage of viper pastilles rather than theriac) at *Ant*. I: XIV 48.13–49.3 and in the Damocrates poem *Ant*. I: XIV 99.4–6. Damocrates warns against wood but permits silver:

Ἀπόθου, φυλάττων μὴ ξυλίνοις ἀγγείοις, Ύαλίνοις δὲ μᾶλλον, κερατίνοις τε κἀργυροῖς, Καὶ κασσιτερινοῖς, καὶ κεραμίοις τε πυκνοῖς.

Galen himself warns against unrefined silver on the grounds that it rusts quickly, a warning one would perhaps expect Galen to repeat in *Ther.Pis.*: ή δ' ἀπόθεσις ἐν ἀγγείω καττιτερινῷ ἢ ὑαλίνῷ ἢ χρυσῷ γινέσθω. τὸ μὲν οὖν ὑάλινον καὶ τὸ χρυσοῦν οὐδεμίαν ἔχει τὴν δόλωσιν, ὁ δὲ καττιτερινὸς μίξει μολύβδου δολοῦται. τὸν τοιοῦτον οὖν φεύγειν προσήκει, οὐ μόνον ἐπὶ ταύτης, ἀλλὰ καὶ τῶν ἄλλων ἀντιδότων ἀπασῶν, ὥσπερ γε καὶ τὸν ἐξ ἀργύρου μὴ κεκαθαρμένου, τάχιστα γὰρ καὶ οὖτος ἰὸν ἐπιτρεφόμενον ἔχει. καλοῦσι δ' οἱ Ῥωμαῖοι τὸν κεκαθαρμένον ἄργυρον κάνδιδον.

p. 136) 14 καταλιπών τινα τόπον εἰς διαπνοὴν τῷ φαρμάκῳ] The metaphor of a liquid "breathing" does not seem to occur elsewhere in Galen, and the only parallel I can find elsewhere is in Dio Chrysostom *Oration* XIII 15.76–78 where the act of διαπνεῖν over time causes a drug to lose its efficacy: οὐ γὰρ δή γε εἰκός ἐστι τοὺς παλαιοὺς λόγους ὥσπερ φάρμακα διαπνεύσαντας ἀπολωλεκέναι τὴν δύναμιν.

p. 136) 16 Storage and maturation. There is no detailed commentary on this in *Ant.* although we learn by implication that two months is the bare minimum required, and not long enough for proper maturation: *Ant.* I: XIV 64.15–65.3 σύνθεσίν τινα τῷ αὐτοκράτορι Μάρκῳ Ἀντωνίνῳ ποιησάμενος, ὅλην εὗρον τὴν ἀντί-δοτον ἱκανῶς τῶν ἄλλων ὑπερέχουσαν, ὥστε γευσάμενον αὐτῆς τὸν αὐτοκράτορα μὴ περιμεῖναι χρόνον, ὥσπερ ἐπὶ τῶν ἄλλων, ἐν ῷ πεφθήσεται τὸ φάρμακον, ἀλλ' εὐθέως χρῆσθαι, μηδὲ δύο μηνῶν ὁλοκλήρων ἐν τῷ μεταξὺ γενομένων. *Ant.* I: XIV 49.3–13 gives advice on the shelf life of theriac pastilles. Damocrates gives vague advice to use the drug neither fresh nor too old and advice on how to revive it (*Ant.* I: XIV 99.7–13):

Δίδου τε πίνειν, μήτε γεγονὸς ἀρτίως Τὸ φάρμακον, μήτε πάλιν ἐξηρασμένον, Ὅπερ εἰ γένοιτο διὰ τὸ μῆκος τοῦ χρόνου, Πάλιν ζέσας πρόσβαλλε μέλιτος σύμμετρον Συνεκλεάνας τ' ἐφ' ἱκανὸν τοῦτο χρόνον, Εὔχρηστον ἕξεις τὴν ἄχρηστον τῷ χρόνῳ, Πολλῷ δ' ἐλάττω τῆς κεκραμένης ἅπαξ.

p. 136) 20 The main Arabic text has 12 months instead of years and 7 months rather than 5 or 7 years, though a separate Arabic text preserved as a fragment has 12, 5 and 7 years as in the Greek tradition (Richter-Bernburg (1969) 39.) I take the months reading to be an error although given the paucity of indications elsewhere as to maturation times it cannot be absolutely ruled out.

p. 136) 23  $\dot{\epsilon}\tau\hat{\omega}\nu$ : L has  $\dot{\delta}\tau\hat{\omega}\nu$ . Q's  $\dot{\epsilon}\tau\hat{\omega}\nu$  is in the body of the text, not a correction, so may be a mistransscription but is nevertheless a superior reading.

p. 138) 2 Testing the drug: cf. p. 70. l. 13 ff. and n.—a similar test used there to establish whether the drug is adulterated.

p. 138) 16 ἀλεξιτήριον: the mss. and Aldline have ἀλεξιτήριον, Cratander and subsequent edd. have ἀλεξητήριον. LSJ does not report the ἀλεξιτήρ- stem at all and TLG shows the earliest example in Oribasius, with most of the 65 instances very late. ἀλεξητήρ- (234 instances overall including 24 in Galen) occurs in Homer, all three tragedians, Hippocrates, Plato and Xenophon among others. I have hesitantly retained the reading in L on the basis that the change by Cratander is presumably based on the editors' notion of the correct spelling, and the same may equally apply in some or all of the other occurrences in Galen.

p. 138) 17 Chartier chapter heading (see Introduction p. 62): Πρός πόσας νόσους βοηθεῖν πέφυκεν ἡ θηριακή.

p. 138) 17 This chapter differentiates *Ther.Pis.* from *Ant.* by its extravagant praise of theriac as medicine for every part of the body. It follows an *a capite ad calcem* order as *Comp. Med. Loc.* does; that is not of course to say that it is consciously or unconsciously modelled on *Comp. Med. Loc.*, the order being obvious and traditional—see for example Celsus, *de Medicina* 4.1. The detailed order is reasonably close to that in *Comp. Med. Loc.*—again, not evidence of influence of the one by the other; *Comp. Med. Loc.* has a whole book on the hair

and baldness, a topic omitted by *Ther.Pis.*; conversely *Ther.Pis.* after reaching the foot goes on to deal with ailments of the  $\psi \upsilon \chi \dot{\eta}$  and of the whole body which *Comp. Med. Loc.* does not.

p. 140) 3 ἀπ' αὐτοῦ ... ὕπνοις Q<sup>2</sup> marks this sentence with an asterisk but it is printed in the Aldine. The passage makes good sense—there are two related but separate problems, sleeplessness and sleep which is disturbed by dreams and visions, as is clear from *San. Tu.* IV: VI 247.12–248.1 εἰ δὲ καὶ κατὰ τὴν ἑξῆς ἡμέραν ἔτι παραμένοι, σκεπτέον ἤδη περὶ βοηθήματος ἰσχυροτέρου, καὶ μάλιστ' εἰ διὰ τῆς νυκτὸς ἤτοι κοπώδης ἐπὶ πλέον ἢ ἀσώδης ἢ ἄγρυπνος ἢ ἐν ὕπνοις τισὶ φαντασιώδεσί τε καὶ ταραχώδεσι γένοιτο. The sense is therefore perfectly acceptable. As for the grammar I take αὐτοῦ to refer to ὕπνον and ἀπ' αὐτοῦ ... παύουσα to mean "banishing from it," though I can find no parallel for παύω ἀπο. I have deleted τοῖς ὕπνοις after παύουσα because the words seem to fulfil no purpose and may be a marginal note which has crept into the text. The Arabic text omits this sentence altogether, but that could well be because the translator did not understand it.

p. 140) 6 όταν έγκείμενά τινα παχέα φλέγματα εἰς τὰς σήραγγας η̇ τοῦ πνεύμονος Q<sup>1</sup> has η̈ (accented thus) which is then deleted and κωλύοντα changed to κωλύονται to compensate for loss of the verb. Chartier then "corrects" further to give the subjunctive required by ὅταν. L N and Y have η̈ although L and N as usual omit the iota subscript.

p. 140) 18 There is no obvious explanation for Q<sup>2</sup>'s addition of kal  $\sigma\pi\lambda\eta\nu$ ikàς, kal  $\sigma\pi\lambda\eta\nu$  to this sentence. Not reflected in the Arabic.

p. 140) 21 σώματος: Q<sup>2</sup> is right to reject ήπατος as an echo of ήπαρ in the previous line but σώματος is a better reading than Q<sup>2</sup>'s αἵματος since it is found in the Arabic and since we know that jaundice causes yellow bile to pervade the whole body: πῶς οὖν τοῖς ἰκτερικοῖς ἅμ' ἄμφω συμπίπτει, τὰ μὲν διαχωρήματα μηδὲν ὅλως ἐν αὐτοῖς ἔχοντα χολῆς, ἀνάπλεων δ' αὐτοῖς γιγνόμενον ὅλον τὸ σῶμα Nat.Fac. I: II 40.4–7

p. 142) 8 Q<sup>2</sup> alters àvístyst to έξανίστησι, but the difference in meaning if any is so slight that the alteration is unjustified.

p. 144) 24 τοῦ νοσήματος: these words are absent in L N Y but present in M and Q<sup>1</sup>. They are clearly needed— $\dot{\alpha}\pi\dot{\eta}\lambda\lambda\alpha\xi\alpha$  on its own cannot mean "healed". Presumably a conjecture in M.

p. 146) 1 Chartier chapter heading (see Introduction p. 62): Μεθοδικών ἔλεγχος ἄχρηστον εἶναι νομιζόντων τὸ εἰδέναι τὰς τῶν νόσων αἰτίας· καὶ πάλιν τὰ χρήσιμα τῆς θηριακῆς διεξίησι.

p. 146) 1 Rabies and plague: cf. p. 92. l. 13 where the two appear in sequence (but in reverse order to this chapter) in the Andromachus poem. Being úδροφόβος and being  $\lambda \upsilon \sigma \sigma \delta \eta \varkappa \tau \circ \varsigma$  are usually treated as synonyms in Galen though cf. *Comp. Med. Gen.* II:XIII 431.12–16 [Λευκή "Ηρα πρός τοὺς ὑδροφόβους.] Πάλιν οὖν ἐπὶ τὸν "Ηραν ἀφικόμεθα, γράφοντα μετὰ τὴν Ἀτταλικὴν ἔμπλαστρον ἑτέραν λευκὴν, αὐτοῖς ὀνόμασι τοῖσδε· λευκὴ πρὸς τοὺς λυσσοδήκτους. ποιεῖ δ' ἀκριβῶς καὶ πρὸς τοὺς ὑδροφόβους. (ὑδραφόβους in Kühn is presumably a misprint).

p. 146) 9 Compare the story of two dog bite victims, put into the mouth of an empiricist seeking to refute the claim of a methodist that there is no medical value in knowing the causes of things, in *Sect. Int.* I 88.4–89.5:

Two men both bitten by a furious dog go to their usual respective doctors. One doctor treats the wound only; the other, when he hears that the dog was furious (ἐπειδὴ λυττῶντ' ἔγνω τὸν κύνα) prescribes powerful anti-rabies drugs: τοσοῦτον ἀπέδει τοῦ σπεύδειν εἰς οὐλὴν ἄγειν τὸ ἕλκος, ὥστ' αὐτὸ τοὐναντίον ἀεἰ καὶ μᾶλλον εἰργάζετο μεῖζον ἰσχυροῖς τε καὶ δριμέσι χρώμενος φαρμάκοις ἕως χρόνου συχνοῦ καὶ πίνειν δ' αὐτὸν κατηνάγκαζεν ἐν τῷ χρόνῳ τούτῳ φάρμακα τὰ λύττης ἰάματα. The latter patient recovers, the former dies. the schools of the two doctors are not identified, but the context implies that the doctor who fails by refusing to inquire into the causes of things is an ἐμπειρικός.

p. 146) 17 o  $\mu\epsilon\theta$ odixos: The omission by  $Q^1$  and editions makes nonsense of the sentence because it places the blame on the victim rather than the doctor.

p. 146) 24 ἀπροοράτους: The mss. have ἀπροοράτους except for N which gives ἀπροοράτως as a variant. This is probably because he is uncertain what L has written (he does not provide conjectures to improve the sense) and though - τους and -τως are rather similar in L's hand I am confident that he has written ἀπροοράτους. The word occurs in Galen only here and *Praen*. XIV 622.7–10: ἐπιτίθενται γὰρ τοῖς ἀγνοοῦσιν αὐτοὺς ἀπροοράτως, καὶ μάλισθ' ὅταν ἀντιδακεῖν αὐτοὺς οῦ δι' ἀπλότητα γνώμης μὴ δύνανται, καθάπερ αὐτοὶ δάκνουσιν ἀλλήλους, ἐάν τι καὶ σμικρὸν ἀδικηθῶσιν. The CMG (Nutton 1979) corrects to ἀπροοράτοις. LSJ s.v. give this passage of *Ther.Pis*. as evidence for the meaning "not previously seen". The word can also mean "unwary, not foreseeing" as in Philo Judaeus *Quod deus sit immutabilis* 130.5–6 ἀλλ' οἶα τυφλὸς ἀπροοράτως πασιν ἐμπίπτων and the natural meaning of the passage is in my view, contrary to LSJ, that the dog attacks

unwary bystanders. The translators seem to agree: the Latin in Chartier and Kuhn has "deinde rursus subito consistum, cum ira quaedam magis furenti, non ipsi praevisos momordisse"; Rota has "furiosa quadam indignatione improvisos aggrederet".

p. 146) 26 ἀχούσεις—the sense requires the future indicative, not aorist subjunctive ἀχούσης as in Q<sup>1</sup>. The two words are written identically in L.

p. 148) 18 For Hippocrates and the Plague see Pinault (1992) 35-60. Pinault traces the story of Hippocrates curing the Athenian plague as if it were fully developed prior to its appearance here but her precedents are all incompatible with the version here: Varro Res Rusticae 1.4.5.1-3 asks "an non ille Hippocrates medicus in magna pestilentia non unum agrum, sed multa oppida scientia servavit?" "multa oppida" is inconsistent with the saving of Athens alone in this anecdote, and the method of salvation is unspecified. Pliny NH VII 123.6–9 speaks of Hippocrates foretelling a plague from Illyria and dispatching his pupils around the cities to render assistance-a resume of the pseudo-Hippocratic *Embassy* and/or *Decree* and incompatible in almost every detail with the present passage; NH XXVI 202.1-4 says that Hippocrates (and Empedocles) says in his writings that epidemics caused by eclipses-obscuratione solis—can be cured by bonfires: Est et ipsis ignibus medica vis. pestilentiae, quae obscuratione solis contrahitur, ignes si fiant, multif(a)riam auxiliari certum est. Empedocles et Hippocrates id demonstravere diversis locis; Plutarch de Iside et Osiride 383 D 1-3 identifies Akron (of Akragas), not Hippocrates, as the doctor who ordered fires to burned during a great plague at Athens: Ἄχρωνα γοῦν τὸν ἰατρὸν ἐν Ἀθήναις ὑπὸ τὸν μέγαν λοιμὸν εὐδοκιμῆσαι λέγουσι πῦρ κελεύοντα παρακαίειν τοῖς νοσοῦσιν· ὤνησε γὰρ οὐκ ὀλίγους. So the story in Ther.Pis. conflates the Hippocrates and Akron stories and is a new development, either invented by the author or adopted by him from a source probably more recent than Plutarch, on the assumption that if the story were already told of Hippocrates in Plutarch's time Plutarch is likely to have known and reported it because Hippocrates is a source of greater auctoritas than Akron.

This raises the problem that the account of the plague in Thucydides is incompatible with the story of Hippocrates curing or even alleviating it; Thucydides is very clear that medical interventions were initially useless and later useful only sporadically. Thuc. II 47.4.1–6 οὕτε γὰρ ἰατροὶ ἤρκουν τὸ πρῶτον θεραπεύοντες ἀγνοία, ἀλλ' αὐτοὶ μάλιστα ἔθνῃσκον ὅσω καὶ μάλιστα προσῆσαν, οὕτε ἄλλη ἀνθρωπεία τέχνη οὐδεμία· ὅσα τε πρὸς ἱεροῖς ἱκέτευσαν ἢ μαντείοις καὶ τοῖς τοιούτοις ἐχρήσαντο, πάντα ἀνωφελῆ ἦν, τελευτῶντές τε αὐτῶν ἀπέστησαν ὑπὸ τοῦ κακοῦ νικώμενοι. Thuc. II 51.2.1–3.1 ἔθνῃσκον δὲ οἱ μὲν ἀμελεία, οἱ δὲ καὶ πάνυ θεραπευόμενοι. ἕν τε οὐδὲ ἕν κατέστη ἴαμα ὡς εἰπεῖν ὅτι χρῆν προσφέροντας ὡφελεῖν· τὸ γάρ τῷ ξυνενεγκὸν ἄλλον τοῦτο ἔβλαπτεν. Galen shows in two places outside *Ther.Pis.* a detailed knowledge of the passage in Thucydides. In *Diff. Feb.* I: VII 290.2–11

καθά φησιν ὁ Θουκυδίδης· ἀλλ' ἐν καλύβαις πνιγηραῖς ὥρα θέρους διαιτωμένων ὁ φθόρος κατὰ τὸ σῶμα ἐγίνετο. τῷ δ' εἶναι τοὺς ἐν τῷ σώματι χυμοὺς ἐκ μοχθηρᾶς διαίτης ἐπιτηδείους εἰς σῆψιν ἀρχὴ τοῦ λοιμώδους γίνεται πυρετοῦ. τάχα δὲ καὶ κατὰ τὸ συνεχὲς ἐξ Αἰθιοπίας ἐρρύη τινὰ σηπεδονώδη μιάσματα τοῖς ἐπιτηδείως ἔχουσι σώματα βλαβῆναι πρὸς αὐτῶν, αἴτια πυρετοῦ γενησόμενα

### there is a direct quotation of Thuc. II 52.1-3.

Έπίεσε δ' αὐτοὺς μαλλον πρὸς τῷ ὑπάρχοντι πόνῷ καὶ ἡ ξυγκομιδὴ ἐκ τῶν ἀγρῶν ἐς τὸ ἄστυ, καὶ οὐχ ἦσσον τοὺς ἐπελθόντας. οἰκιῶν γὰρ οὐχ ὑπαρχουσῶν, ἀλλ' ἐν καλύβαις πνιγηραῖς ὥρα ἔτους διαιτωμένων ὁ φθόρος ἐγίγνετο οὐδενὶ κόσμῷ, ἀλλὰ καὶ νεκροὶ ἐπ' ἀλλήλοις ἀποθνήσκοντες ἔκειντο καὶ ἐν ταῖς ὁδοῖς ἐκαλινδοῦντο καὶ περὶ τὰς κρήνας ἁπάσας ἡμιθνῆτες τοῦ ὕδατος ἐπιθυμίգ.

In *Diff. Resp.* II: VII 850.8–851.15 Galen compares the approach of Hippocrates to the description of symptoms with that of Thucydides who is used to represent the intelligent lay writer, who gives details omitted by Hippocrates who as a doctor writing for doctors assumes his reader knows things which a layman would not. The plague passage is specifically referred to: Diff. Resp. II: VII 851.12–15 άποδέδεικται δὲ καὶ περὶ τούτων ἡμῖν ἐν ἄλλοις τε πολλοῖς καὶ δὴ κἀν τοῖς περὶ τῆς Ἱπποκράτους ἀνατομῆς, οὐχ ἥκιστα δὲ κἀν τοῖς περὶ τοῦ παρὰ τοῦ Θουχυδίδου λοιμού. It is very difficult indeed to see how Galen, being so familiar with the Thucydidean passage, can have recounted the story about Hippocrates curing the plague without comment on the discrepancy. Further, Strohmaier (2004) 1–2 reports that there is no reference to this story in Galen's commentary on Airs Waters Places (surviving only in the Arabic, edited but not at the time of writing published by Strohmaier) as one might reasonably expect if Galen was familiar with, and believed, the story. The failure to identify Thucydides by name is reminiscent of the failure to identify Hannibal and Eumenes in the anecdote about them at p. 86. l. 12.

p. 148) 18 τὸν θαυμασιώτατον Ἱπποκράτην: ὁ θαυμάσιος Ἱπποκράτης occurs elsewhere in Galen—seven instances including p. 120. l. 14 above. θαυμασιώτατος however is applied to Hippocrates only here and at p. 152. l. 19 below; in all the other fourteen places in the corpus where the word applies to an individual or group of people (e.g. ὁ θαυμασιώτατος Λύκος *Adv. Lyc.* XVIIIA 216.1–2, τούτων

#### COMMENTARY

οὐδὲν οἱ θαυμασιώτατοι γιγνώσκοντες μεθοδικοὶ *MM* VI: X 422.16–17) the use is heavily sarcastic.

p. 148) 19 τὸν λοιμὸν ἐκεῖνον τὸν ἐκ τῆς Αἰθιοπίας εἰς τοὺς Ἔλληνας φθάσαντα: the source is Thucydides II 48.1–2: ἤρξατο δὲ τὸ μὲν πρῶτον, ὡς λέγεται, ἐξ Αἰθιοπίας τῆς ὑπὲρ Αἰγὑπτου, ἔπειτα δὲ καὶ ἐς Αἴγυπτον καὶ Λιβύην κατέβη καὶ ἐς τὴν βασιλέως γῆν τὴν πολλήν. ἐς δὲ τὴν Ἀθηναίων πόλιν ἐξαπιναίως ἐσέπεσε. φθάσαντα: compare ἡ χρῆσις εἰς τὸ κοινὸν ἔφθασε p. 72. l. 10 for the unusual use of φθάνω meaning to arrive, with no connotation of priority.

p. 150) 4  $\eta$  εὐάκεστον: L has  $\eta$  εὐάρεστον which  $Q^2$  deletes.  $\eta$  εὐάκεστον makes sense which εὐάρεστον does not, though the phrase adds nothing to εὐίατον and is probably a gloss which has got into the text.

p. 150) 14 ἕνδυμα occurs only here in the Galenic corpus and is generally rare in BC authors. Its use figuratively is largely a Christian phenomenon: e.g. Hesychius *Commentarius Brevis* 132.2.12–15 Ἐνδυμα τῶν πιστῶν ὁ Χριστός. ὅσοι γὰρ εἰς Χριστὸν ἐβαπτίσθητε, Χριστὸν ἐνεδύσασθε, φησὶν ὁ ἀπόστολος. Paul *Galatians* 27.3 ὅσοι γὰρ εἰς Χριστὸν ἐβαπτίσθητε, Χριστὸν ἐνεδύσασθε· Origen *Selecta in Ezechielem* 13 812.7–9 Καὶ ἐνέδυσά σε ποικίλα. Ἐνδυμά ἐστι ποικίλον ἡ ἐκ τῶν ποικίλων ἀρετῶν κοσμουμένη ἕξις, ἐκ δογμάτων ἀληθείας καὶ πράξεως εὐσεβοῦς.

p. 150) 20 τὴν τοιαύτην δυσπάθειαν: δυσπάθεια is a propensity not to come to harm. The concept arises frequently in *UP* e.g. *UP* I:III 31.6–9 on why the nails of a human hand have naturally rounded ends: μόνον γὰρ τῶν σχημάτων πρὸς δυσπάθειαν ἀχριβῶς παρεσκεύασται τὸ κυκλοτερές, ὡς ἂν μηδεμίαν ἐκκειμένην ἔχον γωνίαν ἀποθραυσθῆναι δυναμένην ... The word is used three times in this passage of *Ther.Pis.*—four times including the cognate δυσπαθὲς above—but as far as I can tell Galen does not use it elsewhere to denote the immunity conferred by a prophylactic drug.

p. 152) 6 Βίτοιτον: for the proper name of the assistant in Mithridates' suicide cf. the naming of Cleopatra's assistants p. 104. l. 2. The name is given as Bioτόκος (L M N Y) Βιστόκος (Q<sup>1</sup>). I have corrected to Βίτοιτος on the strength of Appian *Mithridatica* 538.1–539.1 Βίτοιτον οὖν τινα ἰδών [sc. ὁ Μιθριδάτης], ἡγεμόνα Κελτῶν, "πολλὰ μὲν ἐκ τῆς σῆς", ἔφη, "δεξιᾶς ἐς πολεμίους ἀνάμην, ὀνήσομαι δὲ μέγιστον, εἰ νῦν με κατεργάσαιο, κινδυνεύοντα ἐς πομπὴν ἀπαχθῆναι θριάμβου, τὸν μέχρι πολλοῦ τοσῆσδε ἀρχῆς αὐτοκράτορα καὶ βασιλέα, ἀδυνατοῦντα ἐκ φαρμάχων ἀποθανεῖν δι' εὐήθη προφυλακὴν ἑτέρων φαρμάκων." Neither Βιοτόκος (L N Y) nor Βιστόκος (Q) occurs in LGPN or elsewhere. Bituitus king of the Arverni, defeated by Fabius Maximus in 121 BC (Livy 61.13–16), guarantees the existence of the Keltic name (there is of course no reason to suppose any connection between the two). There are notable parallels between this story and the death of Cleopatra as described at p. 104. l. 2 above: the readiness of two attendant females (respectively daughters and servants) to die with (συναποθανεῖν) the principal character because of love (φιλοστοργίαν) and the further parallel that both Cleopatra and Mithridates are motivated by the fear of appearing in a triumph in Rome. This motive is mentioned in *Ther.Pis.* in relation to Cleopatra (καὶ ἑλομένη μάλλον ἔτι βασίλισσα οὖσα ἐξ ἀνθρώπων γενέσθαι ἤπερ ἰδιώτης Ῥωμαίοις φανῆναι) and by Appian in relation to Mithridates (κινδυνεύοντα ἐς πομπὴν ἀπαχθῆναι θριάμβου). On this as a standard topos see Beard (2007) 114– 117.

p. 152) 9 Chartier chapter heading (see Introduction p. 62): Πόσον καὶ πότε καὶ ὑφ' ὧν ληπτέον τὴν θηριακήν.

p. 152) 21 ὑπὸ κύνα καὶ πρὸ κυνὸς: I give the text as it appears in Littré and in Galen's Sect. Int. and Commentary on the Aphorisms. The readings in the Ther.Pis. mss all differ from this and none of them would be satisfactory even if it were consistent with those sources. Note that Littré's apparatus records that the Paulus Magnolus edition of Hippocrates (Venice 1542) has πρὸ κυνὸς καὶ κατὰ κύνα as a variant in the margin. Littré does not indicate what provenance if any Magnolus provides for the variant and it may be that he has taken it from the Aldine edition of Ther.Pis.

φαρμαχίας ἐργώδεας: Littré, Sect. Int. and Commentary on the Aphorisms have ἐργώδεες αἰ φαρμαχεῖαι. LSJ φαρμαχεία, Ion. ίη, = φαρμαχεία, Hp.Decent. 10, Lxx Ex. 7.11 (pl.), Man. 2.310.

This passage presents difficulties for the theory that Galen is the author of *Ther.Pis.*  $\varphi \alpha \rho \mu \alpha \varkappa \epsilon \hat{\alpha}$  is a deceptive word meaning (LSJ s.v.) " $\varphi \alpha \rho \mu \check{\alpha} \varkappa \epsilon \hat{\alpha}$ ,  $\dot{\eta}$ , use of drugs, esp. of purgatives, Hp.Aph. 1.24, 2.36 (both pl.) ...". So Adams (1849) translates *Aphorisms* 4.5 "About the time of the dog-days, and before it, the administration of purgatives is unsuitable." Littré "Pendant la canicule et avant la canicule les évacuations sont laborieuses". Chadwick and Mann in Lloyd (1983) 216 translate "The administration of drugs is attended with difficulty at the rising of the Dog Star and shortly before" while Walzer and Frede (1985) (translation of *Sect. Int.*) give "During and before the dog days, medicines cause problems". There is a simple issue here as to what the Greek means. The Hippocratic usage of  $\varphi \alpha \rho \mu \alpha \varkappa \epsilon \hat{\alpha}$  as meaning purgative drugs and not drugs in general has apparently misled scholars of the distinction of Chadwick and Mann. (There is not incidentally any question that Chadwick and Mann are translat-

ing a variant in the original text. Littré prints αί φαρμακεῖαι and has the note in the apparatus "φαρμακείαι [9 mss. identified by letter], Gal.—φαρμακία vulg." This is unnecessarily confusing: φαρμαχία could be either feminine singular and according to LSJ simply an orthographic variant of papuaxeia, or the neuter plural of the diminutive φαρμάχιον, and if Littré told us what the vulgate had in place of al we would know which it was. The point is not however crucial, first because the point at issue here is not what the text says but what Galen understood it to say, and secondly because the Hippocrates text so clearly requires a word meaning "purgative drug" that we would be justified in rejecting any variant which gave a different meaning). I have no doubt that LSJ and the earlier translators are to be preferred. Aphorisms 4.1-3 and 5-20 are exclusively about purgation and aphorism 4 would be out of place if it were about "medicines" generally. (It would also be quite hard to explain, whatever its context. Do we really expect Hippocrates to say that there are long periods of the year when the doctor cannot safely prescribe drugs of any kind at all?) The crucial point for present purposes is how Galen interprets the passage. In Commentary on the Aphorisms he clearly understands the word φαρμαχεῖα in this sense of "purgative drug" with a meaning equivalent to τῷ καθαρτικῷ φαρμάκῳ in *Hipp. Aph.* IV: XVIIb 664.4-13

Έκπεπυρωμένη τε γὰρ ἡμῶν ἡ φύσις οὗσα τηνικαῦτα τὴν ἀπὸ τῶν καθαρτικῶν [καθαρκτικῶν Kühn] οὐκ οἴσει δριμύτητα, διὸ καὶ πυρέττουσι πολλοὶ τῶν ἐν τούτῳ τῷ καιρῷ καθαρθέντων, ἀσθενής τε οὖσα ἡ δύναμις διὰ τὸ καῦμα προσκαταλυθήσεται τῆ καθάρσει. καὶ μέντοι καὶ ἡ κάθαρσις αὕτη γενήσεται μοχθηρὰ, ἀντισπώσης τῷ καθαρτικῷ φαρμάκῳ τῆς τοῦ περιέχοντος ἀλέας πρὸς τοὐκτὸς τοὺς χυμούς. ὥσπερ γὰρ τὰ θερμὰ λουτρὰ ταῖς καθάρσεσιν ἀντιπράττειν πέφυκεν, οὕτω καὶ ἡ κατὰ τὸ θέρος θερμασία, καὶ μάλισθ' ὅταν ἦ σφοδρότερον ἑαυτοῦ.

Compare Hippocrates' use of the verb  $\varphi \alpha \rho \mu \alpha \varkappa \varepsilon' \varepsilon \iota \upsilon$ : as with  $\varphi \alpha \rho \mu \alpha \varkappa \varepsilon \iota' \alpha$  this has the sense "to use purgative drugs" and not, as might be expected, simply "to use drugs". Galen himself points this out in his commentary on Aphorisms I 22: *Hipp. Aph.* I: XVIIb 441.1–6:

Πέπονα φαρμακεύειν καὶ κινέειν μὴ ὠμὰ, μηδ' ἐν ἀρχῆσιν, ἢν μὴ ὀργậ· τὰ δὲ πολλὰ οὐκ ὀργậ.

Τὸ μὲν φαρμακεύειν ἔθος ἐστὶν αὐτῷ λέγειν ἀντὶ τοῦ χρῆσθαι φαρμάκῳ καθαίροντι ...

Of the 72 uses of φαρμαχεῖα/φαρμαχεῖη in Galen the word means "medicines, drugs" in general three times: in *Comp. Med. Loc.*: I: XII 493.15 (where however it seems to be part of the title of Soranus' book); *Comp. Med. Loc.* II: XII 580.2

(where it is part of a section heading and not certainly by Galen himself) and Comp. Med. Loc. V: XII 845.17, and twice in Ther. Pis.; it means "poison" twice in Loc. Affect. V: VIII 355.11, VI: VIII 422.16 and once in Praen. XIV 602.11. On the other occasions where it is used it is in a commentary on or quotation from Hippocrates and has the sense of "purgative drug". The author of *Ther.Pis.* on the other hand believes Hippocrates to be talking about drugs in general: it cannot be the case that he thinks that the passage applies only to purgatives because he applies it to theriac, and we know that he thinks theriac has a very powerful anti-purgative effect since he twice recommends testing the quality of theriac by first administering a purgative and seeing whether the theriac counteracts it: (p. 70. l. 13, p. 138. l. 2). Galen's other quotation of the aphorism at Sect. Int. I 89.19–20 is uninformative as to the meaning of φαρμαχεῖα because he is focussing there not on the type of drug involved but on the point that the Hippocratic advice implies that the time of year is relevant to medical decisions, while Galen's imaginary methodist opponent denies this. Note that this passage in Sect. Int. immediately follows the story of the mad dog (above, p. 146. l. 1 ff. and n.) which may provide a clue as to the method of composition of Ther.Pis.

p. 154) 8 δίδοσθαι τοῦ φαρμάκου] For the partitive genitive see p. 70. l. 13 ff. and n.

p. 154) 8 Note the parallels and antitheses between this story and that of Piso's son p. 68. l. 1 ff. and n., p. 74. l. 7 ff. and n. at the beginning of the piece. The father's intervention here is malign rather than benign,  $\tau$ υραννικήν is a term of disparagement rather than praise.

p. 154) 14 cf. Sect. Int. I 90.7–13 (just after the quotation from Hippocrates discussed above) where Galen says that those who live in the North or in Egypt are less able to benefit from phlebotomy than those in between ( $\tau \circ \iota \varsigma \delta' \dot{\epsilon} \nu \mu \dot{\epsilon} \sigma \omega \tau \circ \iota \tau \circ \iota \sigma \iota$ ).

p. 154) 18 Chartier chapter heading (see Introduction p. 62): περί άλῶν θηριαχῶν.

p. 154) 18 Heading: L has τέλος Γαληνοῦ προς Πισώνα τῆς θηριαχῆς ἀντιδότου: τοῦ ἀυτοῦ περὶ ἀλῶν, all crossed out. The Arabic text ends exactly here except for a final chapter which is an appendix containing the text of the Andromachus poem. The suggestion that *Ther.Pis.* ends here and that what follows is a separate work is to some extent contradicted by the next but one sentence ἀναγκαῖον γὰρ ἔδοξέ μοι καὶ τῶν ἀλῶν μνημονεῦσαι, ἵνα τελειότατος ὁ περὶ τούτων σοι λόγος γένηται which however can be read as a rather crude attempt to create a bridge between the two documents. There is no indication in the earlier part of the treatise that a discussion of theriac salts is forthcoming. Cf. also the conclusion of the treatise for an explicit linkage of the subjects of theriac, and theriac salts p. 160. l. 23 οὖτός ἐστιν ὁ περὶ τῆς θηριακῆς καὶ τῶν θηριακῶν ἁλῶν λόγος, φιλοπόνως, ὡς οἶμαι, ἐξετασθεἰς ὑπ' ἐμοῦ μάλιστα κτλ.

There are few references elsewhere in Galen to theriac salts: *MM* XIV: X 995.3–4 notes that ἀλλὰ καὶ οἱ διὰ τῶν κεκαυμένων ἐχιδνῶν ἅλες ἱκανῶς λεπτύνουσι. *SMT* XI: XII 319.1–10 mentions in passing that theriac salts are prepared at the same time of year as theriac pastilles and contains a slightly curious refusal to go into detail and defence of the fact that detail has been given as to how to make theriac pastilles: γίγνονται δὲ καὶ οἱ διὰ τῶν ὀπτηθεισῶν ἐχιδνῶν ἅλες ὑπὸ τὸν αὐτὸν καιρὸν εἰς χύτραν καινὴν ἐμβαλλόντων ἡμῶν τὰς ἐχίδνας ζώσας, ἅμα τοῖς ὑπεστορεσμένοις τε καὶ περικειμένοις αὐταῖς φαρμάκοις, ἁ λέγειν ἅπαντα νῦν οὐκ ἔστι τῆς ἐνεστώσης πραγματείας. ἴσως γάρ τις ἡμῖν εὐλόγως ἐγκαλέσει καὶ περὶ τῶν ἀρτίσκων τῆς κατασκευῆς ὡς οὐκ ἐν καιρῷ διελθοῦσιν. ἀλλὰ ταῦτα μὲν ἐπειδὴ φθάνει λελέχθαι, φυλαττέσθω, κἂν δοκῆ μὴ πάνυ τι τῆς προκειμένης εἶναι πραγματείας ἴδια. τὰ δ' ἑξῆς κατὰ τὸ προσῆκον μέτρον λεγέσθω.

p. 156) 9 cf. Hp. VM sec. 3 for an account of how food is rendered edible by cooking.

p. 156) 15 χαλκîτις: cf. *Comp. Med. Gen.* IV: XIII 661.12–16: καὶ αἱ στυπτηρίαι δὲ πάσαι ξηραίνουσιν ἱκανῶς ἕλκη στύφουσαι σφοδρῶς. ὅθεν οὐκ ἀν τις αὐταῖς χρήσεται μόναις ἐφ' ἕλκους, ὥσπερ οὐδὲ ὠμῇ χαλκίτιδι καὶ ἰῷ. κεκαυμένα δὲ ταῦτα καὶ τὸ μίσυ χρήσιμα, καθάπερ γε καὶ πλυθέντα.

p. 156) 17 cf. Comp. Med. Loc. IV: XII 727.5–730.4—a lengthy recipe which Galen emphasises is his own invention—Xρησιμώτατον ύγιαίνουσιν ὀφθαλμοῖς προφυλακτικὸν ἐγὼ συνέθηκα φάρμακον, ὃ πάντες ἔχουσιν ἤδη. καίεται γὰρ λίθος Φρύγιος εἰς λεπτὰ καταθραυσθεὶς, ὡς εἶναι μείζων τοῦ καλουμένου μὲν ὑπό τινων καρύου ποντικοῦ, πρὸς ἄλλων δὲ λεπτοκαρύου. (727.6–10)

p. 156) 18 cf. SMT XI: XII 376.1–8: [ια'. Περὶ σπόγγου.] Σπόγγος ὁ μὲν κεκαυμένος δριμείας ἐστὶ καὶ διαφορητικῆς δυνάμεως. ἐχρῆτο δ' αὐτῷ τις τῶν ἡμετέρων διδασκάλων καὶ πρὸς τὰς ἐν ταῖς χειρουργίαις αἰμορραγίας, ἕτοιμον ἔχων ξηρὸν μὲν καὶ ἀνικμον, δεδευμένον δὲ μάλιστα μὲν ἀσφάλτῳ, μὴ παρούσης δὲ ταύτης πίττῃ, προσετίθει δ' αὐτὸν τοῖς αἰμορραγοῦσι χωρίοις, ἔτι καιόμενον, ὡς ἐσχαροῦσθαί τε ἅμα τὸ μόριον καὶ οἶον πῶμά τι λαμβάνειν αὐτὸ τὸ σῶμα τοῦ καυθέντος σπόγγου. All three instances correspond closely with the respective passages cited from elsewhere

in Galen in emphasising that the material in question needs burning in order to be effective.

p. 156) 20–21 πάντα γὰρ ὁμοῦ καιόμενα καὶ ὁλόκληρα συναπτόμενα] The point is apparently that the head and tail do not need removing if the animal is to be burnt to make salts, as they do if it is boiled to make theriac as discussed in chapter IX (p. 106).

p. 156) 21 ἐπιτεταμένην: neither L's reading ὑποτεταμένην nor Q's emendation ὑπερτεταμένην is satisfactory: both words are used by Galen almost exclusively in their literal senses of respectively stretched beneath and stretched above. For ἐπιτεταμένην intense cf. above p. 140. l. 11 ff. and n. For a construction similar to the present cf. *Comp. Med. Gen.* II: XIII 499. 10–14 ἐπιτεταμένην δὲ τὴν ῥυπτικὴν δύναμιν ἔχει τὰ τὸν πολὺν ἀφαιροῦντα ῥύπον, ὥστ' ἔνια τῶν εἰρημένων φαρμάκων χλωρῶν ἑνὶ μόνῷ τῶν ἀπλῶς σαρκωτικῶν διαφέρει τῷ πλήθει τοῦ ἰοῦ.

p. 158) 7 Chartier chapter heading (see Introduction p. 62): Περὶ ἀλῶν θηριακῶν κατασκευῆς

p. 158) 9 L has  $\lambda'$ , thirty here but  $\delta'$ at p. 158. l. 17 below. Q<sup>1</sup> has  $\delta'$ . L's  $\lambda'$  could perhaps be construed as  $\delta'$  and deviations from L in Q<sup>1</sup> tend to be mere omissions and errors. However in this instance Paulus Med. VII 11.6.2 has  $\Lambda \alpha \beta \omega \nu \dot{\epsilon} \chi i \delta \nu \alpha \varsigma \nu \epsilon 0 \eta \rho \dot{\alpha} \tau \circ \upsilon \varsigma \delta$  at the beginning of a recipe for "Ales  $\theta \eta \rho i \alpha \kappa \circ i$  clearly based on this passage.

p. 158) 13 λίτραν α' S'' Kühn, λίτραν α' S. in Aldine. L has a ligature of alpha and lunate sigma. The λίτρα is usually used by Galen as a measure of liquid or semiliquid commodities such as honey or fat: e.g. above p. 128. l. 13—μέλιτος λίτρας ι' in the theriac recipe; p. 136. l. 7—again about honey. Usually he switches measurement units when specifying liquids and herbal ingredients in the same recipe; occasionally a whole recipe is given using λίτρα meaures for all or almost all ingredients including herbal e.g. Comp. Med. Gen. VII: XIII 1039.10-1040.15-Andromachus' recipe for γλευχίνος of which a representative part is μαράθρου λίτρας β'. βαλσάμου καρποῦ λίτρας β'. κρόκου γο γ'. δαφνίδων λίτραν α'. πεπέρεως λευκοῦ λίτραν α'. ἀποβαλσάμου γο γ'. μαλαβάθρου φύλλων λίτρας δύο (1040.7-9). Presumably those departures from the norm are explicable on the basis that Galen is reproducing someone else's words. Here there is a switch to λίτρα measures which is not on the face of it explicable on that basis-the recipe is given in the authorial voice. There are only the two uses of  $\lambda i \tau \rho \alpha$  prior to the recipe for theriac salts-the 10 litres of honey referred to above-and nine in the recipe for theriac salts.

p. 158) 13 λίτραν α' S'' Kühn, λίτραν α' S. in Aldine.

p. 158) 15 L has ènteriwing litran a' but "heartwood" without specifying the heartwood of what is meaningless.

p. 158) 15 Chartier adds σελίνου here. This corresponds to the recipe in Paulus Med. 7.11.6.5.

p. 160) 2  $\dot{\omega}\pi\tau\eta\sigma\theta\alpha$ : reading taken from Paulus Med. L has  $\dot{\epsilon}\pi\tau\eta\sigma\theta\alpha$  which is meaningless: Q<sup>1</sup> and the edd. have  $\dot{\epsilon}\psi\eta\sigma\theta\alpha$  and variants thereof. The distinction between  $\dot{\sigma}\pi\tau\dot{\alpha}\omega$  and  $\ddot{\epsilon}\psi\omega$  is that  $\dot{\sigma}\pi\tau\dot{\alpha}\omega$  means roasting or broiling whereas  $\ddot{\epsilon}\psi\omega$  means boiling, cooking in liquid (LSJ s.v.  $\dot{\sigma}\pi\tau\dot{\alpha}\omega$ ).  $\dot{\sigma}\pi\tau\dot{\alpha}\omega$  is clearly appropriate here since there is no liquid among the ingredients, which are in effect burnt.

p. 160) 13 πειρώ: Q<sup>1</sup>'s πυρώ is meaningless.

p. 160) 25 μέμνημαι γάρ: the text here is confused. The overall sense required seems to be: I am ending the work here because I have observed in the past your insistence that arguments must not go on indefinitely. The problems are that  $\chi \rho \eta \nu \alpha \iota$  τούς λέγοντας διαλιπεῖν ποτε in L yields the satisfactory sense "that it is necessary for speakers to take a break occasionally" but requires a preface "you judge that ..."; Q<sup>2</sup>'s alteration to  $\varkappa \rho i \nu \alpha \iota$  provides "you judge that" but at the expense of losing "it is necessary". The second issue is what the scope of πολλάς ἀφορμάς is. In Galen ἀφορμή is usually followed by an abstract noun in the genitive: e.g. ἀφορμήν συλλογισμοῦ the starting point of a syllogism: *Dig.Puls*. IV: VIII 941.9–10. We have one case of it taking an infinitive, πιθανήν ἀφορμήν εἶχον ἐπιτιμήσαι σφοδρῶς. *Praen.* XIV 629.3–4 tr. Nutton "[they] had a plausible occasion to censure him severely." I have taken ἀφορμὰς ...  $\chi \rho \eta \nu \alpha \iota$  as elliptical for "occasions [to contend that] it is necessary" but this arguably goes beyond what the text will support.

p. 162) 3 φιλοτιμέσμαι is relatively common in Galen and elsewhere. The active voice φιλοτιμέω (not recognised by LSJ) is rare and very late: the earliest instances in TLG excluding this one are in Basilius Caesariensis *Homilia de misericordia et judicio* 31.1709.48 (4th century) Chrysippus *Encomium in Michaelem archangelum*. (5th century) Page 93 line 6.

p. 162) 3 λαλοῦστν: usually used by Galen in original sense of "talk nonsense" e.g. *Diff.Puls*. III: VIII 653.4 τοῦτο δὲ οὐ λέγειν, ἀλλὰ λαλεῖν ἐστί but L's καλοῦσιν is unacceptable. For a neutral meaning in Galen see *Caus.Puls*. III: IX 138.1–3 (of sleep) τὰ δ' ἀλλὰ πάντα τοῖς ἀποθνήσκουσιν ὅμοια, μὴ βλέπειν, μὴ ἀκούειν, μὴ φρονεῖν, μὴ νοεῖν, μὴ λαλεῖν, ἀναίσθητον, ἀκίνητον, ἀλόγιστον ἐρρίφθαι.

p. 162) 4–5 ἐνίστε δὲ καὶ τὰ χρηστήρια σιωπậ, ποτὲ καὶ ἡ θάλασσα τοῖς χειμῶσι τὸ πλεῖσθαι οὐκ ἔχει.] The elaborate ending of the treatise is unparalleled in Galen. For the silence of the oracles possibly cf. Plutarch *de Defectu Oraculorum* which is however about permanent cessation.

# Appendices

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# μήν

Text	Word count	μήν	Percentage
Ther.Pis.	13556	0	0%
Comp. Med. Loc.	150524	53	0.04%
Praen.	11530	6	0.05%
Musc. Diss.	15368	8	0.05%
Comp. Med. Gen.	109210	64	0.06%
Caus. Symp.	30535	22	0.07%
Ant.	28945	22	0.08%
Hipp.Art.	55499	43	0.08%
Ars Med.	16776	13	0.08%
Hipp.Fract.	44698	37	0.08%
UP	202076	170	0.08%
Hipp.Epid. 6	79741	73	0.09%
Cur. Rat. Ven. Sect.	10398	10	0.10%
Hipp.Off. Med.	43376	42	0.10%
MM	163139	166	0.10%
HNH	25350	26	0.10%
Cris.	34406	36	0.10%
Hipp.Aph.	102970	108	0.10%
Hipp.Epid. 1	40571	43	0.11%
Hipp.Epid. 3	42913	47	0.11%
Hipp.Prorrh.	47475	54	0.11%
HVA	69473	80	0.12%
PHP	98571	114	0.12%
San. Tu.	69757	85	0.12%
Diff. Resp.	33093	41	0.12%
Hipp.Prog.	43712	55	0.13%
MMG	23690	30	0.13%
Praes. Puls.	37699	49	0.13%
Loc. Aff.	72559	96	0.13%
AA	81247	110	0.14%
CAM	12396	17	0.14%
Di. Dec.	28286	39	0.14%

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Text	Word count	μήν	Percentage
Plen.	11502	16	0.14%
Sem.	21557	30	0.14%
Syn. Puls.	16348	24	0.15%
Temp.	28600	43	0.15%
Mot. Musc.	15264	23	0.15%
Diff. Feb.	21703	33	0.15%
Diff. Puls.	44391	68	0.15%
Thras.	14352	22	0.15%
SMT	139244	228	0.16%
Hipp.Elem.	13951	23	0.16%
Dig. Puls.	32375	54	0.17%
Alim. Fac.	46318	83	0.18%
Nat. Fac.	33104	61	0.18%
Caus. Puls.	33321	67	0.20%
Bon Mal. Suc.	10678	24	0.22%

# γοῦν

Text	Word count	Incidence	Percentage	
Ther.Pis.	13556	27	0.20%	
Loc. Aff.	72559	75	0.10%	
Hipp. Epid. 3	42913	44	0.10%	
Plen.	11502	11	0.10%	
Hipp. Epid. 1	40571	38	0.09%	
Bon Mal. Suc.	10678	10	0.09%	
MM	163139	150	0.09%	
Thras.	14352	13	0.09%	
CAM	12396	11	0.09%	
Hipp. Prorrh.	47475	41	0.09%	
Hipp. Aph.	102970	87	0.08%	
РНР	98571	83	0.08%	
HNH	25350	21	0.08%	
Hipp. Epid. 6	79741	66	0.08%	
Diff. Puls.	44391	35	0.08%	
Temp.	28600	21	0.07%	
Hipp.Elem.	13951	10	0.07%	
SMT	139244	99	0.07%	
Dig. Puls.	32375	23	0.07%	
Cris.	34406	24	0.07%	
sem	21557	15	0.07%	
Cur. Rat. Ven. Sect.	10398	7	0.07%	
Syn. Puls.	16348	11	0.07%	
Hipp. Prog.	43712	29	0.07%	
Diff. Feb.	21703	14	0.06%	
AA	81247	51	0.06%	
HVA	69473	43	0.06%	
Alim. Fac.	46318	28	0.06%	
Symp. Caus.	30535	18	0.06%	
Antidotes	28945	17	0.06%	
Diff. Resp.	33093	19	0.06%	
San. Tu.	69757	38	0.05%	

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(conc.)	

Text	Word count	Incidence	Percentage
Caus. Puls.	33321	18	0.05%
Praen.	11530	6	0.05%
Di. Dec.	28286	14	0.05%
Praes. Puls.	37699	18	0.05%
UP	202076	94	0.05%
Hipp. Art.	55499	24	0.04%
Comp. Med. Gen.	109210	46	0.04%
Mot. Musc.	15264	6	0.04%
Nat. Fac.	33104	13	0.04%
Hipp. Off. Med.	43376	17	0.04%
MMG	23690	9	0.04%
Ars Med.	16776	6	0.04%
Hipp. Fract.	44698	13	0.03%
Comp. Med. Loc.	150524	28	0.02%
Musc. Diss.	15368	1	0.01%

## ἵνα

Text	Word count	ἵνα incidence	່ເ້ນ'	ແva percentage
Ther.Pis.	13556	33	2	0.26%
Mot. Musc.	15264	11	9	0.13%
Dig. Puls.	32375	16	19	0.11%
UP	202076	66	117	0.09%
Nat. Fac.	33104	17	10	0.08%
Diff. Puls.	44391	16	20	0.08%
Hipp.Prorrh.	47475	23	10	0.07%
Hipp.Elem.	13951	2	7	0.06%
Hipp.Off. Med.	43376	21	2	0.05%
Hipp.Epid. 6	79741	19	23	0.05%
Musc. Diss.	15368	8	0	0.05%
MM	163139	33	46	0.05%
Caus. Puls.	33321	8	8	0.05%
Sem.	21557	2	8	0.05%
Di. Dec.	28286	4	9	0.05%
AA	81247	27	10	0.05%
Diff. Resp.	33093	10	4	0.04%
Thras.	14352	4	2	0.04%
CAM	12396	3	2	0.04%
Hipp.Aph.	102970	27	14	0.04%
Hipp.Prog.	43712	7	8	0.03%
PHP	98571	17	15	0.03%
Hipp.Fract.	44698	10	4	0.03%
Comp. Med. Gen.	109210	26	7	0.03%
San. Tu.	69757	13	8	0.03%
Cris.	34406	6	4	0.03%
Hum.	10593	3	0	0.03%
temp	28600	3	5	0.03%
Hipp.Epid. 3	42913	9	3	0.03%
Hipp.Art.	55499	13	2	0.03%
Plen.	11502	3	0	0.03%
Praen.	11530	2	1	0.03%

Text	Word count	ἵνα incidence	ເັນ'	ἵνα percentage
Syn. Puls.	16348	2	2	0.02%
Ars Med.	16776	4	0	0.02%
Caus. Symp.	30535	6	1	0.02%
HVA	69473	14	1	0.02%
SMT	139244	26	4	0.02%
Hipp.Epid. 1	40571	4	3	0.02%
MMG	23690	3	1	0.02%
Comp. Med. Loc.	150524	22	0	0.01%
Ant.	28945	4	0	0.01%
HNH	25350	2	1	0.01%
Loc. Aff.	72559	4	4	0.01%
Praes. Puls.	37699	1	3	0.01%
Alim. Fac.	46318	2	1	0.01%
Diff. Feb.	21703	1	0	0.00%
Cur. Rat. Ven. Sect.	10398	0	0	0.00%
Bon Mal. Suc.	10678	0	0	0.00%

# ὥσπερ

Text	Word count	Incidence	Percentage	
Ther.Pis.	13556	54	0.40%	
Bon Mal. Suc.	10678	40	0.37%	
Alim. Fac.	46318	166	0.36%	
CAM	12396	37	0.30%	
Sem.	21557	62	0.29%	
Loc. Aff.	72559	180	0.25%	
Thras.	14352	35	0.24%	
SMT	139244	334	0.24%	
HNH	25350	59	0.23%	
Cur. Rat. Ven. Sect.	10398	24	0.23%	
Diff. Feb.	21703	48	0.22%	
PHP	98571	218	0.22%	
Hipp. Epid. 6	79741	176	0.22%	
Hipp. Prorrh.	47475	103	0.22%	
AA	81247	175	0.22%	
San. Tu.	69757	147	0.21%	
Plen.	11502	24	0.21%	
Hipp. Fract.	44698	92	0.21%	
Caus. Puls.	33321	67	0.20%	
UP	202076	398	0.20%	
Hipp. Epid. 3	42913	83	0.19%	
Symp. Caus.	30535	59	0.19%	
Diff. Resp.	33093	63	0.19%	
Syn. Puls.	16348	30	0.18%	
Nat. Fac.	33104	59	0.18%	
Di. Dec.	28286	49	0.17%	
MM	163139	280	0.17%	
Temp.	28600	49	0.17%	
Hipp. Art.	55499	93	0.17%	
Ars Med.	16776	28	0.17%	
Hipp. Aph.	102970	170	0.17%	
Diff. Puls.	44391	73	0.16%	

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Text	Word count	Incidence	Percentage
HVA	69473	114	0.16%
Musc. Diss.	15368	25	0.16%
Hipp. Epid. 1	40571	65	0.16%
Ant.	28945	45	0.16%
Hum.	10593	16	0.15%
Hipp. Prog.	43712	66	0.15%
Hipp. Off. Med.	43376	64	0.15%
Praes. Puls.	37699	55	0.15%
Mot. Musc.	15264	22	0.14%
Comp. Med. Gen.	109210	157	0.14%
Hipp.Elem.	13951	20	0.14%
Cris.	34406	49	0.14%
MMG	23690	31	0.13%
Praen.	11530	14	0.12%
Dig. Puls.	32375	39	0.12%
Comp. Med. Loc.	150524	153	0.10%

## λοιπόν

Text	Word count	Incidence	λοιπόν %	As adverb	As adverb %
Ther.Pis.	13556	13	0.10%	12	0.09%
Hipp.Elem.	13951	2	0.01%	2	0.01%
Diff. Puls.	44391	7	0.02%	6	0.01%
Dig. Puls.	32375	8	0.02%	4	0.01%
Caus. Puls.	33321	8	0.02%	4	0.01%
Praen.	11530	3	0.03%	1	0.01%
Thras.	14352	2	0.01%	1	0.01%
Diff. Resp.	33093	4	0.01%	2	0.01%
Cris.	34406	3	0.01%	2	0.01%
Praes. Puls.	37699	3	0.01%	2	0.01%
Diff. Feb.	21703	1	0.00%	1	0.00%
Hipp. Fract.	44698	5	0.01%	2	0.00%
UP	202076	44	0.02%	9	0.00%
MM	163139	18	0.01%	7	0.00%
РНР	98571	7	0.01%	4	0.00%
Hipp. Aph.	102970	6	0.01%	4	0.00%
AA	81247	18	0.02%	3	0.00%
Hipp. Art.	55499	6	0.01%	2	0.00%
Di. Dec.	28286	2	0.01%	1	0.00%
Тетр	28600	2	0.01%	1	0.00%
Caus.Symp.	30535	2	0.01%	1	0.00%
Comp. Med. Gen.	109210	11	0.01%	3	0.00%
Hipp. Epid. 1	40571	1	0.00%	1	0.00%
Hipp. Epid. 3	42913	1	0.00%	1	0.00%
Hipp. Off. Med.	43376	5	0.01%	1	0.00%
San. Tu.	69757	2	0.00%	1	0.00%
Loc. Aff.	72559	1	0.00%	1	0.00%
Hipp. Epid. 6	79741	3	0.00%	1	0.00%
SMT	139244	11	0.01%	1	0.00%
Comp. Med. Loc.	150524	9	0.01%	1	0.00%
Alim. Fac.	46318	0	0.00%	0	0.00%
Ant.	28945	1	0.00%	0	0.00%

APPENDICES

(cont.)	

Text	Word count	Incidence	λοιπόν %	As adverb	As adverb %
Ars Med.	16776	3	0.02%	0	0.00%
Bon. Mal. Suc.	10678	0	0.00%	0	0.00%
CAM	12396	0	0.00%	0	0.00%
Cur. Rat. Ven. Sect.	10398	0	0.00%	0	0.00%
Hipp. Prog.	43712	1	0.00%	0	0.00%
Hipp. Prorrh.	47475	0	0.00%	0	0.00%
HNH	25350	0	0.00%	0	0.00%
HVA	69473	0	0.00%	0	0.00%
MMG	23690	1	0.00%	0	0.00%
Mot. Musc.	15264	1	0.01%	0	0.00%
Musc. Diss.	15368	0	0.00%	0	0.00%
Nat. Fac.	33104	5	0.02%	0	0.00%
Plen.	11502	0	0.00%	0	0.00%
Sem.	21557	1	0.00%	0	0.00%
Syn. Puls.	16348	3	0.02%	0	0.00%

# οủ and μή

Text	Word count	μή	οὐ/οὐκ/οὐχ(ι)	All neg	μή as % all negs
Hipp. Fract.	44698	240	302	542	44.28%
Ther.Pis.	13556	62	85	147	42.18%
Hipp. Art.	55499	254	357	611	41.57%
Hipp. Off. Med.	43376	203	286	489	41.51%
HVA	69473	363	582	945	38.41%
Hipp. Prog.	43712	187	322	509	36.74%
MMG	23690	86	149	235	36.60%
Comp. Med. Gen.	109210	253	453	706	35.84%
Comp. Med. Loc.	150524	258	463	721	35.78%
Cur. Rat. Ven. Sect.	10398	35	67	102	34.31%
Ant.	28945	71	142	213	33.33%
Hipp. Aph.	102970	417	864	1281	32.55%
Plen.	11502	70	164	234	29.91%
Mot. Musc.	15264	53	127	180	29.44%
Dig. Puls.	32375	141	352	493	28.60%
San. Tu.	69757	204	515	719	28.37%
Cris.	34406	132	335	467	28.27%
Hipp. Epid. 6	79741	276	701	977	28.25%
Ars Med.	16776	43	110	153	28.10%
MM	163139	541	1409	1950	27.74%
Syn. Puls.	16348	42	114	156	26.92%
Hipp. Prorrh.	47475	175	477	652	26.84%
Hipp.Elem.	13951	53	153	206	25.73%
Praen.	11530	33	96	129	25.58%
Diff. Resp.	33093	106	315	421	25.18%
UP	202076	519	1555	2074	25.02%
Loc. Aff.	72559	175	546	721	24.27%
Nat. Fac.	33104	109	341	450	24.22%
Hipp. Epid. 1	40571	116	367	483	24.02%
Diff. Puls.	44391	148	477	625	23.68%
Hipp. Epid. 3	42913	128	421	549	23.32%
Bon Mal. Suc.	10678	24	80	104	23.08%

APPENDICES

2	6	8

Text	Word count	μή	οὐ/οὐκ/οὐχ(ι)	All neg	μή as % all negs
Di. Dec.	28286	77	268	345	22.32%
PHP	98571	302	1056	1358	22.24%
Caus. Puls.	33321	88	313	401	21.95%
Diff. Feb.	21703	45	163	208	21.63%
AA	81247	128	473	601	21.30%
Caus. Symp.	30535	59	220	279	21.15%
HNH	25350	67	267	334	20.06%
Praes. Puls.	37699	68	273	341	19.94%
Sem.	21557	59	237	296	19.93%
SMT	139244	276	1132	1408	19.60%
Temp.	28600	64	275	339	18.88%
CAM	12396	24	111	135	17.78%
Thras.	14352	33	154	187	17.65%
Alim. Fac.	46318	80	385	465	17.20%
Musc. Diss.	15368	8	74	82	9.76%

## ἀλλά

Text	tlg text id	Word count	Incidence	Percentage
AA	11	81247	36	0.04%
Comp. Med. Loc.	76	150524	173	0.11%
Musc.Diss.	102	15368	18	0.12%
Comp. Med. Gen.	77	109210	195	0.18%
Ant.	78	28945	56	0.19%
Ars Med.	7	16776	38	0.23%
Ther.Pis.	79	13556	33	0.24%
Cur.Rat.Ven.Sect.	70	10398	28	0.27%
Mot.Musc.	18	15264	42	0.28%
Syn.Puls.	63	16348	46	0.28%
Cris.	64	34406	97	0.28%
Praes.Puls.	62	37699	109	0.29%
CAM	6	12396	36	0.29%
Hipp.Off.Med.	101	43376	126	0.29%
Caus.Symp.	44	30535	90	0.29%
HVA	87	69473	207	0.30%
MM	66	163139	496	0.30%
Hipp.Aph.	92	102970	315	0.31%
Hipp.Fract.	100	44698	138	0.31%
Bon.Mal.Suc.	38	10678	33	0.31%
Hipp.Prorrh.	88	47475	147	0.31%
Hipp.Art.	95	55499	172	0.31%
Diff.Feb.	45	21703	68	0.31%
Hipp.Prog.	99	43712	138	0.32%
Hipp.Epid.VI	91	79741	258	0.32%
Hipp.Epid.III	90	42913	139	0.32%
Hipp.Epid.I	89	40571	132	0.33%
Hipp.Elem.	8	13951	46	0.33%
UP	17	202076	670	0.33%
Nat.Fac.	10	33104	111	0.34%
San.Tu.	36	69757	235	0.34%
Loc.Affect.	57	72559	245	0.34%

APPENDICES

Text	tlg text id	Word count	Incidence	Percentage
MMG	67	23690	80	0.34%
PHP	32	98571	341	0.35%
Praen.	83	11530	40	0.35%
Caus.Puls.	61	33321	116	0.35%
Temp.	9	28600	101	0.35%
SMT	75	139244	499	0.36%
Alim.Fac.	37	46318	166	0.36%
Di.Dec.	65	28286	104	0.37%
Dig.Puls.	60	32375	120	0.37%
Diff.resp.	56	33093	128	0.39%
Plen.	50	11502	45	0.39%
Sem.	21	21557	87	0.40%
HNH	85	25350	112	0.44%
Thras.	33	14352	69	0.48%
Diff.Puls.	59	44391	217	0.49%

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## ďν

Text	tlg text id	Word count	Incidence	Percentage
Ther.Pis.	79	13556	10	0.07%
Ant.	78	28945	39	0.13%
Musc.Diss.	102	15368	24	0.16%
Comp. Med. Loc.	76	150524	249	0.17%
Comp. Med. Gen.	77	109210	199	0.18%
Ars Med.	7	16776	34	0.20%
AA	11	81247	173	0.21%
Bon.Mal.Suc.	38	10678	23	0.22%
Praen.	83	11530	26	0.23%
Alim.Fac.	37	46318	116	0.25%
Hipp.Epid.III	90	42913	113	0.26%
Hipp.Epid.I	89	40571	107	0.26%
CAM	6	12396	33	0.27%
Cur.Rat.Ven.Sect.	70	10398	28	0.27%
Hipp.Off.Med.	101	43376	118	0.27%
Syn.Puls.	63	16348	46	0.28%
MMG	67	23690	74	0.31%
Hipp.Prorrh.	88	47475	150	0.32%
Hipp.Epid.VI	91	79741	260	0.33%
Praes.Puls.	62	37699	127	0.34%
Hipp.Prog.	99	43712	150	0.34%
SMT	75	139244	486	0.35%
Hipp.Aph.	92	102970	366	0.36%
Diff.Feb.	45	21703	80	0.37%
Caus.Symp.	44	30535	113	0.37%
Loc.Affect.	57	72559	269	0.37%
Temp.	9	28600	107	0.37%
MM	66	163139	621	0.38%
HVA	87	69473	277	0.40%
San.Tu.	36	69757	284	0.41%
Hipp.Fract.	100	44698	188	0.42%
Diff.resp.	56	33093	140	0.42%
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APPENDICES

Text	tlg text id	Word count	Incidence	Percentage
HNH	85	25350	109	0.43%
Thras.	33	14352	62	0.43%
Cris.	64	34406	151	0.44%
Di.Dec.	65	28286	125	0.44%
Sem.	21	21557	96	0.45%
Plen.	50	11502	$5^{2}$	0.45%
Diff.Puls.	59	44391	201	0.45%
Hipp.Elem.	8	13951	67	0.48%
Hipp.Art.	95	55499	277	0.50%
PHP	32	98571	493	0.50%
Mot.Musc.	18	15264	83	0.54%
Caus.Puls.	61	33321	185	0.56%
Nat.Fac.	10	33104	184	0.56%
UP	17	202076	1128	0.56%
Dig.Puls.	60	32375	194	0.60%

(cont.)

## δέ

Text	tlg text id	Word count	Incidence	Percentage
Ther.Pis.	79	13556	266	1.96%
Hipp.Elem.	8	13951	312	2.24%
Comp. Med. Loc.	76	150524	3546	2.36%
Nat.Fac.	10	33104	781	2.36%
РНР	32	98571	2393	2.43%
UP	17	202076	4941	2.45%
Sem.	21	21557	533	2.47%
Hipp.Epid.III	90	42913	1079	2.51%
Hipp.Prorrh.	88	47475	1197	2.52%
o Dig.Puls.	60	32375	824	2.55%
Hipp.Aph.	92	102970	2630	2.55%
Diff.resp.	56	33093	870	2.63%
HNH	85	25350	670	2.64%
Ant.	78	28945	773	2.67%
Loc.Affect.	57	72559	1938	2.67%
Hipp.Art.	95	55499	1483	2.67%
Diff.Puls.	59	44391	1187	2.67%
Thras.	33	14352	385	2.68%
Cur.Rat.Ven.Sect.	70	10398	279	2.68%
AA	11	81247	2189	2.69%
Hipp.Epid.VI	91	79741	2161	2.71%
Plen.	50	11502	314	2.73%
Comp. Med. Gen.	77	109210	2983	2.73%
Di.Dec.	65	28286	780	2.76%
Diff.Feb.	45	21703	603	2.78%
MM	66	163139	4590	2.81%
CAM	6	12396	350	2.82%
Hipp.Off.Med.	101	43376	1233	2.84%
Hipp.Fract.	100	44698	1275	2.85%
Temp.	9	28600	827	2.89%
HVA	87	69473	2014	2.90%
Praen.	83	11530	336	2.91%

Text	tlg text id	Word count	Incidence	Percentage
Hipp.Prog.	99	43712	1304	2.98%
SMT	75	139244	4227	3.04%
Hipp.Epid.I	89	40571	1238	3.05%
Cris.	64	34406	1053	3.06%
Syn.Puls.	63	16348	508	3.11%
San.Tu.	36	69757	2173	3.12%
Praes.Puls.	62	37699	1189	3.15%
Musc.Diss.	102	15368	488	3.18%
Caus.Puls.	61	33321	1078	3.24%
Caus.Symp.	44	30535	990	3.24%
Mot.Musc.	18	15264	501	3.28%
MMG	67	23690	800	3.38%
Alim.Fac.	37	46318	1572	3.39%
Bon.Mal.Suc.	38	10678	384	3.60%
Ars Med.	7	16776	753	4.49%

## δή

Text	tlg text id	Word count	Incidence	Percentage
CMG	77	109210	28	0.03%
Comp. Med. Loc.	76	150524	39	0.03%
Ant.	78	28945	8	0.03%
Cur.Rat.Ven.Sect.	70	10398	5	0.05%
Alim.Fac.	37	46318	25	0.05%
Hipp.Epid.III	90	42913	27	0.06%
Hipp.Prorrh.	88	47475	30	0.06%
Hipp.Epid.VI	91	79741	55	0.07%
Bon.Mal.Suc.	38	10678	8	0.07%
Hipp.Epid.I	89	40571	34	0.08%
Syn.Puls.	63	16348	14	0.09%
Hipp.Fract.	100	44698	39	0.09%
Loc.Affect.	57	72559	64	0.09%
Hipp.Off.Med.	101	43376	41	0.09%
Hipp.Art.	95	55499	54	0.10%
Praen.	83	11530	12	0.10%
Musc.Diss.	102	15368	16	0.10%
HNH	85	25350	28	0.11%
HVA	87	69473	77	0.11%
AA	11	81247	96	0.12%
Hipp.Prog.	99	43712	52	0.12%
Hipp.Aph.	92	102970	133	0.13%
Dig.Puls.	60	32375	58	0.18%
MMG	67	23690	43	0.18%
Diff.Puls.	59	44391	83	0.19%
Plen.	50	11502	22	0.19%
Ther.Pis.	79	13556	26	0.19%
Mot.Musc.	18	15264	30	0.20%
MM	66	163139	322	0.20%
Caus.Puls.	61	33321	69	0.21%
РНР	32	98571	208	0.21%
Nat.Fac.	10	33104	71	0.21%

APPENDICES

Text	tlg text id	Word count	Incidence	Percentage
Ars Med.	7	16776	38	0.23%
SMT	75	139244	319	0.23%
Diff.Feb.	45	21703	51	0.23%
CAM	6	12396	30	0.24%
Thras.	33	14352	35	0.24%
Sem.	21	21557	53	0.25%
Hipp.Elem.	8	13951	35	0.25%
San.Tu.	36	69757	180	0.26%
Caus.Symp.	44	30535	83	0.27%
Praes.Puls.	62	37699	104	0.28%
Diff.resp.	56	33093	93	0.28%
UP	17	202076	656	0.32%
Di.Dec.	65	28286	94	0.33%
Temp.	9	28600	115	0.40%
Cris.	64	34406	142	0.41%

276

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## διά

Text	tlg text id	Word count	Incidence	Percentage
Thras.	33	14352	29	0.20%
Diff.Puls.	59	44391	103	0.23%
Plen.	50	11502	35	0.30%
Temp.	9	28600	88	0.31%
Musc.Diss.	102	15368	48	0.31%
Hipp.Elem.	8	13951	45	0.32%
Dig.Puls.	60	32375	107	0.33%
Ant.	78	28945	102	0.35%
Cris.	64	34406	122	0.35%
Di.Dec.	65	28286	113	0.40%
AA	11	81247	334	0.41%
CAM	6	12396	52	0.42%
Sem.	21	21557	91	0.42%
SMT	75	139244	620	0.45%
Nat.Fac.	10	33104	152	0.46%
РНР	32	98571	472	0.48%
San.Tu.	36	69757	340	0.49%
Comp. Med. Gen.	77	109210	541	0.50%
Hipp.Off.Med.	101	43376	215	0.50%
Diff.Feb.	45	21703	109	0.50%
Alim.Fac.	37	46318	235	0.51%
Praes.Puls.	62	37699	197	0.52%
Mot.Musc.	18	15264	81	0.53%
UP	17	202076	1081	0.53%
Comp. Med. Loc.	76	150524	807	0.54%
Loc.Affect.	57	72559	391	0.54%
Hipp.Fract.	100	44698	245	0.55%
MM	66	163139	898	0.55%
Ars Med.	7	16776	93	0.55%
Bon.Mal.Suc.	38	10678	60	0.56%
HNH	85	25350	144	0.57%
Syn.Puls.	63	16348	95	0.58%

Text	tlg text id	Word count	Incidence	Percentage
Hipp.Art.	95	55499	332	0.60%
Praen.	83	11530	69	0.60%
Hipp.Prog.	99	43712	262	0.60%
MMG	67	23690	143	0.60%
Cur.Rat.Ven.Sect.	70	10398	67	0.64%
Caus.Symp.	44	30535	201	0.66%
Ther.Pis.	79	13556	90	0.66%
Hipp.Epid.VI	91	79741	534	0.67%
Caus.Puls.	61	33321	231	0.69%
Hipp.Prorrh.	88	47475	334	0.70%
Diff.resp.	56	33093	236	0.71%
HVA	87	69473	509	0.73%
Hipp.Epid.I	89	40571	298	0.73%
Hipp.Epid.III	90	42913	348	0.81%
Hipp.Aph.	92	102970	838	0.81%

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## εἴ

Text	tlg text id	Word count	Incidence	Percentage
Musc.Diss.	102	15368	24	0.16%
Ant.	78	28945	51	0.18%
Comp. Med. Loc.	76	150524	310	0.21%
Bon.Mal.Suc.	38	10678	22	0.21%
Praen.	83	11530	24	0.21%
Comp. Med. Gen.	77	109210	268	0.25%
AA	11	81247	210	0.26%
Hipp.Off.Med.	101	43376	115	0.27%
Hipp.Epid.III	90	42913	114	0.27%
Hipp.Epid.I	89	40571	118	0.29%
Syn.Puls.	63	16348	48	0.29%
Ther.Pis.	79	13556	40	0.30%
Alim.Fac.	37	46318	139	0.30%
HNH	85	25350	83	0.33%
Hipp.Art.	95	55499	183	0.33%
Loc.Affect.	57	72559	252	0.35%
Hipp.Epid.VI	91	79741	280	0.35%
Caus.Symp.	44	30535	108	0.35%
Hipp.Fract.	100	44698	165	0.37%
Hipp.Aph.	92	102970	403	0.39%
Hipp.Prorrh.	88	47475	191	0.40%
Hipp.Prog.	99	43712	178	0.41%
HVA	87	69473	285	0.41%
PHP	32	98571	417	0.42%
Diff.Feb.	45	21703	94	0.43%
SMT	75	139244	639	0.46%
UP	17	202076	929	0.46%
Diff.Puls.	59	44391	214	0.48%
Thras.	33	14352	75	0.52%
Diff.resp.	56	33093	173	0.52%
Caus.Puls.	61	33321	179	0.54%
Sem.	21	21557	116	0.54%

Text	tlg text id	Word count	Incidence	Percentage
Cur.Rat.Ven.Sect.	70	10398	60	0.58%
Mot.Musc.	18	15264	91	0.60%
San.Tu.	36	69757	422	0.60%
Nat.Fac.	10	33104	201	0.61%
Plen.	50	11502	74	0.64%
Praes.Puls.	62	37699	249	0.66%
MM	66	163139	1079	0.66%
Ars Med.	7	16776	115	0.69%
CAM	6	12396	90	0.73%
Hipp.Elem.	8	13951	102	0.73%
Di.Dec.	65	28286	217	0.77%
MMG	67	23690	199	0.84%
Temp.	9	28600	248	0.87%
Dig.Puls.	60	32375	297	0.92%
Cris.	64	34406	333	0.97%

# εἰς

Text	tlg text id	Word count	Incidence	Percentage
Diff.resp.	56	33093	105	0.32%
Ant.	78	28945	95	0.33%
Ars Med.	7	16776	57	0.34%
Hipp.Elem.	8	13951	48	0.34%
Plen.	50	11502	40	0.35%
Hipp.Off.Med.	101	43376	152	0.35%
Diff.Puls.	59	44391	156	0.35%
Hipp.Prorrh.	88	47475	167	0.35%
Comp. Med. Gen.	77	109210	392	0.36%
Hipp.Fract.	100	44698	165	0.37%
Temp.	9	28600	113	0.40%
Comp. Med. Loc.	76	150524	613	0.41%
Hipp.Epid.III	90	42913	175	0.41%
HVA	87	69473	284	0.41%
Cris.	64	34406	146	0.42%
Hipp.Epid.I	89	40571	173	0.43%
SMT	75	139244	616	0.44%
Ther.Pis.	79	13556	60	0.44%
Hipp.Aph.	92	102970	461	0.45%
Thras.	33	14352	65	0.45%
Dig.Puls.	60	32375	149	0.46%
Hipp.Prog.	99	43712	203	0.46%
Hipp.Epid.VI	91	79741	371	0.47%
HNH	85	25350	119	0.47%
MM	66	163139	770	0.47%
Cur.Rat.Ven.Sect.	70	10398	51	0.49%
San.Tu.	36	69757	347	0.50%
Praen.	83	11530	58	0.50%
MMG	67	23690	122	0.51%
Hipp.Art.	95	55499	295	0.53%
Alim.Fac.	37	46318	249	0.54%
РНР	32	98571	559	0.57%

Text	tlg text id	Word count	Incidence	Percentage
Bon.Mal.Suc.	38	10678	61	0.57%
Diff.Feb.	45	21703	133	0.61%
Loc.Affect.	57	72559	459	0.63%
Syn.Puls.	63	16348	105	0.64%
Di.Dec.	65	28286	182	0.64%
CAM	6	12396	81	0.65%
Caus.Symp.	44	30535	205	0.67%
Sem.	21	21557	153	0.71%
AA	11	81247	586	0.72%
Caus.Puls.	61	33321	245	0.74%
Praes.Puls.	62	37699	280	0.74%
Mot.Musc.	18	15264	122	0.80%
Nat.Fac.	10	33104	301	0.91%
UP	17	202076	1840	0.91%
Musc.Diss.	102	15368	183	1.19%

### ἐx

Text	tlg text id	Word count	Incidence	Percentage
Dig.Puls.	60	32375	52	0.16%
Thras.	33	14352	25	0.17%
Caus.Puls.	61	33321	65	0.20%
Mot.Musc.	18	15264	30	0.20%
MMG	67	23690	49	0.21%
Diff.Feb.	45	21703	45	0.21%
Comp. Med. Loc.	76	150524	313	0.21%
Comp. Med. Gen.	77	109210	239	0.22%
Hipp.Aph.	92	102970	235	0.23%
Diff.resp.	56	33093	84	0.25%
San.Tu.	36	69757	180	0.26%
Bon.Mal.Suc.	38	10678	28	0.26%
Diff.Puls.	59	44391	119	0.27%
Caus.Symp.	44	30535	82	0.27%
Temp.	9	28600	78	0.27%
Ther.Pis.	79	13556	38	0.28%
Cris.	64	34406	99	0.29%
Hipp.Off.Med.	101	43376	125	0.29%
Hipp.Art.	95	55499	160	0.29%
Hipp.Epid.III	90	42913	124	0.29%
Hipp.Fract.	100	44698	131	0.29%
Syn.Puls.	63	16348	51	0.31%
HVA	87	69473	217	0.31%
Ant.	78	28945	91	0.31%
Di.Dec.	65	28286	89	0.31%
SMT	75	139244	449	0.32%
Hipp.Epid.VI	91	79741	260	0.33%
Hipp.Prog.	99	43712	143	0.33%
MM	66	163139	551	0.34%
Praes.Puls.	62	37699	129	0.34%
Hipp.Epid.I	89	40571	139	0.34%
Hipp.Prorrh.	88	47475	163	0.34%

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Text	tlg text id	Word count	Incidence	Percentage
Praen.	83	11530	40	0.35%
Plen.	50	11502	40	0.35%
Alim.Fac.	37	46318	167	0.36%
Cur.Rat.Ven.Sect.	70	10398	38	0.37%
Loc.Affect.	57	72559	273	0.38%
Nat.Fac.	10	33104	130	0.39%
AA	11	81247	327	0.40%
PHP	32	98571	398	0.40%
Ars Med.	7	16776	68	0.41 %
UP	17	202076	829	0.41%
HNH	85	25350	106	0.42%
Sem.	21	21557	109	0.51%
CAM	6	12396	66	0.53%
Hipp.Elem.	8	13951	81	0.58%
Musc.Diss.	102	15368	125	0.81 %

## έv

Text	Word count	tlg text id	Incidence	Percentage
Hipp.Epid.I	40571	95	123	0.30%
Comp. Med. Gen.	109210	61	392	0.36%
UP	202076	33	729	0.36%
Caus.Puls.	33321	38	127	0.38%
Hipp.Aph.	102970	56	414	0.40%
Di.Dec.	28286	64	122	0.43%
HVA	69473	88	327	0.47%
MM	163139	87	845	0.52%
Musc.Diss.	15368	18	83	0.54%
Comp. Med. Loc.	150524	44	845	0.56%
Diff.Puls.	44391	65	280	0.63%
Thras.	14352	79	102	0.71%
Hipp.Epid.VI	79741	89	620	0.78%
Mot.Musc.	15264	67	119	0.78%
AA	81247	17	670	0.82%
Ther.Pis.	79	13556	114	0.84%
Praen.	11530	50	97	0.84%
Sem.	21557	36	202	0.94%
Nat.Fac.	33104	102	319	0.96%
SMT	139244	21	1404	1.01%
Loc.Affect.	72559	85	738	1.02%
Temp.	28600	63	298	1.04%
MMG	23690	57	253	1.07%
Hipp.Off.Med.	43376	91	479	1.10%
Hipp.Prog.	43712	100	494	1.13%
Hipp.Prorrh.	47475	101	537	1.13%
Praes.Puls.	37699	83	434	1.15%
Caus.Symp.	30535	6	353	1.16%
San.Tu.	69757	62	837	1.20%
PHP	98571	10	1234	1.25%
Plen.	11502	32	146	1.27%
Hipp.Epid.III	42913	8	564	1.31%

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Text	Word count	tlg text id	Incidence	Percentage
CAM	12396	7	164	1.32%
Syn.Puls.	16348	75	226	1.38%
Diff.resp.	33093	45	461	1.39%
Alim.Fac.	46318	66	665	1.44%
Ars Med.	16776	37	248	1.48%
Dig.Puls.	32375	59	482	1.49%
Bon.Mal.Suc.	10678	78	172	1.61%
Diff.Feb.	21703	70	394	1.82%
Ant.	28945	11	594	2.05%
Hipp.Fract.	44698	90	989	2.21%
HNH	25350	99	614	2.42%
Hipp.Art.	55499	60	1362	2.45%
Hipp.Elem.	13951	92	501	3.59%
Cur.Rat.Ven.Sect.	10398	76	374	3.60%
Cris.	34406	77	1351	3.93%

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Text	tlg text id	Word count	Incidence	Percentage
Hipp.Elem.	8	13951	27	0.19%
Thras.	33	14352	33	0.23%
Ant.	78	28945	94	0.32%
Temp.	9	28600	93	0.33%
Ther.Pis.	79	13556	45	0.33%
SMT	75	139244	518	0.37%
Di.Dec.	65	28286	107	0.38%
HNH	85	25350	96	0.38%
Alim.Fac.	37	46318	181	0.39%
Bon.Mal.Suc.	38	10678	43	0.40%
Sem.	21	21557	88	0.41%
CAM	6	12396	51	0.41%
Diff.Puls.	59	44391	184	0.41%
Nat.Fac.	10	33104	141	0.43%
РНР	32	98571	426	0.43%
Dig.Puls.	60	32375	146	0.45%
Diff.resp.	56	33093	164	0.50%
Praen.	83	11530	58	0.50%
UP	17	202076	1019	0.50%
Caus.Puls.	61	33321	172	0.52%
Comp. Med. Loc.	76	150524	798	0.53%
Mot.Musc.	18	15264	81	0.53%
Syn.Puls.	63	16348	88	0.54%
Cris.	64	34406	186	0.54%
Comp. Med. Gen.	77	109210	597	0.55%
Hipp.Fract.	100	44698	264	0.59%
Caus.Symp.	44	30535	185	0.61%
San.Tu.	36	69757	424	0.61%
Hipp.Prog.	99	43712	268	0.61%
Hipp.Epid.I	89	40571	257	0.63%
Musc.Diss.	102	15368	98	0.64%
MM	66	163139	1042	0.64%

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Text	tlg text id	Word count	Incidence	Percentage
Ars Med.	7	16776	108	0.64%
HVA	87	69473	450	0.65%
Plen.	50	11502	76	0.66%
Loc.Affect.	57	72559	480	0.66%
Hipp.Epid.VI	91	79741	532	0.67%
Hipp.Aph.	92	102970	687	0.67%
MMG	67	23690	159	0.67%
Hipp.Epid.III	90	42913	289	0.67%
Hipp.Art.	95	55499	385	0.69%
AA	11	81247	585	0.72%
Hipp.Off.Med.	101	43376	334	0.77%
Hipp.Prorrh.	88	47475	372	0.78%
Praes.Puls.	62	37699	304	0.81%
Diff.Feb.	45	21703	179	0.82%
Cur.Rat.Ven.Sect.	70	10398	99	0.95%

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Text	tlg text id	Word count	Incidence	Percentage
Musc.Diss.	102	15368	41	0.27%
Comp. Med. Loc.	76	150524	610	0.41%
Ant.	78	28945	140	0.48%
Ars Med.	7	16776	92	0.55%
Comp. Med. Gen.	77	109210	620	0.57%
Praen.	83	11530	68	0.59%
AA	11	81247	601	0.74%
Hipp.Epid.I	89	40571	307	0.76%
Diff.Feb.	45	21703	174	0.80%
Loc.Affect.	57	72559	603	0.83%
Praes.Puls.	62	37699	324	0.86%
MMG	67	23690	208	0.88%
Alim.Fac.	37	46318	411	0.89%
Cur.Rat.Ven.Sect.	70	10398	93	0.89%
Hipp.Epid.III	90	42913	388	0.90%
Syn.Puls.	63	16348	150	0.92%
SMT	75	139244	1281	0.92%
Caus.Symp.	44	30535	282	0.92%
CAM	6	12396	117	0.94%
Hipp.Off.Med.	101	43376	414	0.95%
Bon.Mal.Suc.	38	10678	102	0.96%
Hipp.Aph.	92	102970	1011	0.98%
San.Tu.	36	69757	687	0.98%
MM	66	163139	1609	0.99%
Hipp.Fract.	100	44698	448	1.00%
РНР	32	98571	1001	1.02%
Hipp.Prog.	99	43712	444	1.02%
Hipp.Epid.VI	91	79741	814	1.02%
UP	17	202076	2069	1.02%
Hipp.Art.	95	55499	574	1.03%
Hipp.Prorrh.	88	47475	494	1.04%
Sem.	21	21557	227	1.05%

APPENDICES

Text	tlg text id	Word count	Incidence	Percentage
Plen.	50	11502	127	1.10%
Di.Dec.	65	28286	313	1.11%
HVA	87	69473	771	1.11%
Caus.Puls.	61	33321	376	1.13%
HNH	85	25350	288	1.14%
Nat.Fac.	10	33104	381	1.15%
Diff.Puls.	59	44391	511	1.15%
Diff.resp.	56	33093	384	1.16%
Cris.	64	34406	404	1.17%
Temp.	9	28600	342	1.20%
Ther.Pis.	79	13556	163	1.20%
Dig.Puls.	60	32375	396	1.22%
Mot.Musc.	18	15264	191	1.25%
Thras.	33	14352	180	1.25%
Hipp.Elem.	8	13951	192	1.38%

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Text	tlg text id	Word count	Incidence	Percentage
Musc.Diss.	102	15368	23	0.15%
Comp. Med. Loc.	76	150524	227	0.15%
Ther.Pis.	79	13556	21	0.15%
Hipp.Art.	95	55499	106	0.19%
Hipp.Off.Med.	101	43376	95	0.22%
Ars Med.	7	16776	39	0.23%
Comp. Med. Gen.	77	109210	274	0.25%
Hipp.Fract.	100	44698	117	0.26%
Ant.	78	28945	76	0.26%
Praen.	83	11530	32	0.28%
Mot.Musc.	18	15264	45	0.29%
Cris.	64	34406	103	0.30%
Temp.	9	28600	88	0.31%
Hipp.Prog.	99	43712	138	0.32%
Di.Dec.	65	28286	91	0.32%
Hipp.Epid.I	89	40571	135	0.33%
Hipp.Epid.III	90	42913	143	0.33%
HVA	87	69473	234	0.34%
Caus.Symp.	44	30535	103	0.34%
Hipp.Prorrh.	88	47475	162	0.34%
Diff.Puls.	59	44391	155	0.35%
UP	17	202076	729	0.36%
Hipp.Aph.	92	102970	373	0.36%
Diff.resp.	56	33093	120	0.36%
HNH	85	25350	92	0.36%
Hipp.Epid.VI	91	79741	290	0.36%
MMG	67	23690	87	0.37%
Caus.Puls.	61	33321	124	0.37%
Sem.	21	21557	81	0.38%
SMT	75	139244	527	0.38%
AA	11	81247	320	0.39%
Hipp.Elem.	8	13951	55	0.39%

APPENDICES

Text	tlg text id	Word count	Incidence	Percentage
CAM	6	12396	49	0.40%
Dig.Puls.	60	32375	131	0.40%
MM	66	163139	672	0.41%
Plen.	50	11502	48	0.42%
PHP	32	98571	413	0.42%
Nat.Fac.	10	33104	144	0.43%
San.Tu.	36	69757	305	0.44%
Thras.	33	14352	64	0.45%
Loc.Affect.	57	72559	327	0.45%
Cur.Rat.Ven.Sect.	70	10398	47	0.45%
Praes.Puls.	62	37699	173	0.46%
Diff.Feb.	45	21703	102	0.47%
Syn.Puls.	63	16348	77	0.47%
Alim.Fac.	37	46318	237	0.51%
Bon.Mal.Suc.	38	10678	60	0.56%

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Text	tlg text id	Word count	Incidence	Percentage
MMG	67	23690	82	0.35%
Musc.Diss.	102	15368	56	0.36%
Comp. Med. Loc.	76	150524	585	0.39%
Bon.Mal.Suc.	38	10678	48	0.45%
HNH	85	25350	114	0.45%
Hipp.Epid.I	89	40571	185	0.46%
Mot.Musc.	18	15264	71	0.47%
Ars Med.	7	16776	80	0.48%
Syn.Puls.	63	16348	80	0.49%
Ant.	78	28945	148	0.51%
Diff.Puls.	59	44391	239	0.54%
Comp. Med. Gen.	77	109210	597	0.55%
Alim.Fac.	37	46318	255	0.55%
CAM	6	12396	69	0.56%
AA	11	81247	454	0.56%
Hipp.Aph.	92	102970	589	0.57%
Caus.Puls.	61	33321	195	0.59%
Di.Dec.	65	28286	166	0.59%
HVA	87	69473	409	0.59%
Praes.Puls.	62	37699	222	0.59%
Nat.Fac.	10	33104	197	0.60%
Cur.Rat.Ven.Sect.	70	10398	62	0.60%
Dig.Puls.	60	32375	196	0.61%
Hipp.Art.	95	55499	336	0.61%
Diff.Feb.	45	21703	132	0.61%
San.Tu.	36	69757	428	0.61%
Loc.Affect.	57	72559	446	0.61%
Hipp.Epid.III	90	42913	268	0.62%
Cris.	64	34406	217	0.63%
Hipp.Epid.VI	91	79741	503	0.63%
UP	17	202076	1280	0.63%
Caus.Symp.	44	30535	194	0.64%

Text	tlg text id	Word count	Incidence	Percentage
Hipp.Prog.	99	43712	278	0.64%
Sem.	21	21557	140	0.65%
Hipp.Fract.	100	44698	292	0.65%
Ther.Pis.	79	13556	89	0.66%
Diff.resp.	56	33093	219	0.66%
Hipp.Prorrh.	88	47475	318	0.67%
РНР	32	98571	667	0.68%
SMT	75	139244	951	0.68%
Hipp.Elem.	8	13951	96	0.69%
Hipp.Off.Med.	101	43376	322	0.74%
Thras.	33	14352	108	0.75%
MM	66	163139	1243	0.76%
Plen.	50	11502	97	0.84%
Temp.	9	28600	246	0.86%
Praen.	83	11530	127	1.10%

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Text	tlg text id	Word count	Incidence	Percentage
Musc.Diss.	102	15368	490	3.19%
AA	11	81247	2723	3.35%
Praen.	83	11530	411	3.56%
Hipp.Art.	95	55499	2059	3.71%
Hipp.Fract.	100	44698	1701	3.81%
Mot.Musc.	18	15264	599	3.92%
Hipp.Prorrh.	88	47475	1870	3.94%
Cur.Rat.Ven.Sect.	70	10398	425	4.09%
Loc.Affect.	57	72559	2967	4.09%
Syn.Puls.	63	16348	677	4.14%
Plen.	50	11502	477	4.15%
Hipp.Epid.III	90	42913	1790	4.17%
Hipp.Off.Med.	101	43376	1836	4.23%
Hipp.Epid.VI	91	79741	3458	4.34%
Hipp.Aph.	92	102970	4553	4.42%
Sem.	21	21557	957	4.44%
Dig.Puls.	60	32375	1438	4.44%
Hipp.Prog.	99	43712	2013	4.61%
UP	17	202076	9311	4.61%
Ant.	78	28945	1346	4.65%
PHP	32	98571	4610	4.68%
MM	66	163139	7814	4.79%
Comp. Med. Gen.	77	109210	5310	4.86%
Comp. Med. Loc.	76	150524	7368	4.89%
HNH	85	25350	1244	4.91%
Praes.Puls.	62	37699	1856	4.92%
Diff.Puls.	59	44391	2195	4.94%
Di.Dec.	65	28286	1401	4.95%
CAM	6	12396	614	4.95%
Diff.Feb.	45	21703	1075	4.95%
Hipp.Epid.I	89	40571	2036	5.02%
San.Tu.	36	69757	3525	5.05%

Text	tlg text id	Word count	Incidence	Percentage
HVA	87	69473	3515	5.06%
Caus.Symp.	44	30535	1555	5.09%
Diff.resp.	56	33093	1710	5.17%
Nat.Fac.	10	33104	1723	5.20%
Caus.Puls.	61	33321	1806	5.42%
Thras.	33	14352	789	5.50%
Cris.	64	34406	1967	5.72%
Ars Med.	7	16776	978	5.83%
Alim.Fac.	37	46318	2893	6.25%
Ther.Pis.	79	13556	858	6.33%
Bon.Mal.Suc.	38	10678	696	6.52%
MMG	67	23690	1553	6.56%
Hipp.Elem.	8	13951	915	6.56%
SMT	75	139244	9484	6.81 %
Temp.	9	28600	1955	6.84%

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Hipp.Elem.       8       13951       63       0.45 %         Comp. Med. Loc.       76       150524       753       0.50 %         Ant.       78       28945       155       0.54 %         MMG       67       23690       136       0.57 %         Temp.       9       28600       180       0.63 %         Bon.Mal.Suc.       38       10678       69       0.65 %         Di.Dec.       65       28286       184       0.65 %         Nat.Fac.       10       33104       217       0.66 %         Comp. Med. Gen.       77       109210       754       0.69 %         Sem.       21       21557       162       0.75 %         Plen.       50       11502       90       0.78 %         MM       66       163139       1296       0.79 %         Cris.       64       34406       276       0.80 %         SMT       75       139244       1129       0.81 %         Diff.resp.       56       33093       271       0.82 %         Caus.Puls.       61       33321       274       0.82 %         Dig.Puls.       60       32375	Text	tlg text id	Word count	Incidence	Percentage
Comp. Med. Loc.76 $150524$ 753 $0.50\%$ Ant.78 $28945$ $155$ $0.54\%$ MMG67 $23690$ $136$ $0.63\%$ Bon.Mal.Suc.38 $10678$ $69$ $0.65\%$ Di.Dec. $65$ $28286$ $184$ $0.65\%$ Nat.Fac.10 $33104$ $217$ $0.66\%$ Comp. Med. Gen.77 $109210$ $754$ $0.69\%$ Sem.21 $21557$ $162$ $0.79\%$ Plen.50 $11502$ $90$ $0.78\%$ MM $66$ $163139$ $1296$ $0.79\%$ Cris. $64$ $34406$ $276$ $0.80\%$ SMT75 $139244$ $1129$ $0.81\%$ Diff.resp. $56$ $33093$ $271$ $0.82\%$ Caus.Puls. $61$ $33321$ $274$ $0.82\%$ Dig.Puls. $60$ $32375$ $277$ $0.86\%$ UP $17$ $202076$ $1729$ $0.86\%$ Mot.Musc. $18$ $15264$ $135$ $0.88\%$ Alim.Fac. $37$ $46318$ $397$ $0.86\%$ Mth $85$ $25350$ $250$ $0.99\%$ Hipp.Aph. $92$ $102970$ $996$ $0.97\%$ KAM $6$ $12396$ $121$ $0.98\%$ Hipp.Fract. $100$ $44698$ $472$ $1.06\%$ Hipp.Fract. $100$ $44698$ $472$ $1.06\%$ Hipp.Epid.VI $91$ $79741$ $849$ $1.06\%$	Ther.Pis.	79	13556	21	0.15%
Ant.7828945155 $0.54\%$ MMG6723690136 $0.57\%$ Temp.928600180 $0.63\%$ Bon.Mal.Suc.381067869 $0.65\%$ Di.Dec.6528286184 $0.65\%$ Nat.Fac.1033104217 $0.66\%$ Comp. Med. Gen.77109210754 $0.69\%$ Sem.2121557162 $0.75\%$ Plen.501150290 $0.78\%$ MM661631391296 $0.79\%$ Cris.6434406276 $0.80\%$ SMT751392441129 $0.81\%$ Diff.resp.5633093271 $0.82\%$ Caus.Puls.6133321274 $0.82\%$ Dig.Puls.6032375277 $0.86\%$ UP172020761729 $0.86\%$ Mot.Musc.1815264135 $0.88\%$ Thras.3314352127 $0.88\%$ San.Tu.3669757632 $0.91\%$ HVA8769473644 $0.93\%$ Hipp.Aph.92102970996 $0.97\%$ CAM612396121 $0.98\%$ Hipp.Fract.10044698472 $1.06\%$ Hipp.Fract.10044698472 $1.06\%$ Hipp.Fract.10044698472 $1.06\%$ Hipp.Fract.10044698472 $1.06\%$ <td>Hipp.Elem.</td> <td>8</td> <td>13951</td> <td>63</td> <td>0.45%</td>	Hipp.Elem.	8	13951	63	0.45%
MMG       67       23690       136       0.57%         Temp.       9       28600       180       0.63%         Bon.Mal.Suc.       38       10678       69       0.65%         Di.Dec.       65       28286       184       0.65%         Nat.Fac.       10       33104       217       0.66%         Comp. Med. Gen.       77       109210       754       0.69%         Sem.       21       21557       162       0.75%         Plen.       50       11502       90       0.78%         MM       66       163139       1296       0.79%         Cris.       64       34406       276       0.80%         SMT       75       139244       1129       0.81%         Diff.resp.       56       33093       271       0.82%         Caus.Puls.       61       33321       274       0.82%         Dig.Puls.       60       32375       277       0.86%         Alim.Fac.       37       46318       397       0.86%         Mot.Musc.       18       15264       135       0.88%         San.Tu.       36       69757       632	Comp. Med. Loc.	76	150524	753	0.50%
Temp.9 $28600$ $180$ $0.63\%$ Bon.Mal.Suc. $38$ $10678$ $69$ $0.65\%$ Di.Dec. $65$ $28286$ $184$ $0.65\%$ Nat.Fac. $10$ $33104$ $217$ $0.66\%$ Comp. Med. Gen. $77$ $109210$ $754$ $0.69\%$ Sem. $21$ $21557$ $162$ $0.75\%$ Plen. $50$ $11502$ $90$ $0.78\%$ MM $66$ $163139$ $1296$ $0.79\%$ Cris. $64$ $34406$ $276$ $0.80\%$ SMT $75$ $139244$ $1129$ $0.81\%$ Diff.resp. $56$ $33093$ $271$ $0.82\%$ Caus.Puls. $61$ $33321$ $274$ $0.82\%$ Dig.Puls. $60$ $32375$ $277$ $0.86\%$ UP $17$ $202076$ $1729$ $0.86\%$ Alim.Fac. $37$ $46318$ $397$ $0.86\%$ Mot.Musc. $18$ $15264$ $135$ $0.88\%$ Thras. $33$ $14352$ $127$ $0.88\%$ San.Tu. $36$ $69757$ $632$ $0.91\%$ HVA $87$ $69473$ $644$ $0.93\%$ Hipp.Aph. $92$ $102970$ $996$ $0.97\%$ CAM $6$ $12396$ $121$ $0.98\%$ HNH $85$ $25350$ $250$ $0.99\%$ Hipp.Fract. $100$ $44698$ $472$ $1.06\%$ Hipp.Epid.VI $91$ $79741$ $849$ $1.06\%$	Ant.	78	28945	155	0.54%
Bon.Mal.Suc.       38       10678       69       0.65%         Di.Dec.       65       28286       184       0.65%         Nat.Fac.       10       33104       217       0.66%         Comp. Med. Gen.       77       109210       754       0.69%         Sem.       21       21557       162       0.75%         Plen.       50       11502       90       0.78%         MM       66       163139       1296       0.79%         Cris.       64       34406       276       0.80%         SMT       75       139244       1129       0.81%         Diff.resp.       56       33093       271       0.82%         Caus.Puls.       61       33321       274       0.82%         Dig.Puls.       60       32375       277       0.86%         Alim.Fac.       37       46318       397       0.86%         Mot.Musc.       18       15264       135       0.88%         San.Tu.       36       69757       632       0.91%         HVA       87       69473       644       0.93%         Hipp.Aph.       92       102970       996 </td <td>MMG</td> <td>67</td> <td>23690</td> <td>136</td> <td>0.57%</td>	MMG	67	23690	136	0.57%
Di.Dec.       65       28286       184       0.65 %         Nat.Fac.       10       33104       217       0.66 %         Comp. Med. Gen.       77       109210       754       0.69 %         Sem.       21       21557       162       0.75 %         Plen.       50       11502       90       0.78 %         MM       66       163139       1296       0.79 %         Cris.       64       34406       276       0.80 %         SMT       75       139244       1129       0.81 %         Diff.resp.       56       33093       271       0.82 %         Caus.Puls.       61       33321       274       0.82 %         Dig.Puls.       60       32375       277       0.86 %         Mot.Musc.       18       15264       135       0.88 %         Mars.       33       14352       127       0.88 %         San.Tu.       36       69757       632       0.91 %         HVA       87       69473       644       0.93 %         Hipp.Aph.       92       102970       996       0.97 %         CAM       6       12396       12	Temp.	9	28600	180	0.63%
Nat.Fac.       10       33104       217       0.66%         Comp. Med. Gen.       77       109210       754       0.69%         Sem.       21       21557       162       0.75%         Plen.       50       11502       90       0.78%         MM       66       163139       1296       0.79%         Cris.       64       34406       276       0.80%         SMT       75       139244       1129       0.81%         Diff.resp.       56       33093       271       0.82%         Caus.Puls.       61       3321       274       0.82%         Dig.Puls.       60       32375       277       0.86%         UP       17       202076       1729       0.86%         Mot.Musc.       18       15264       135       0.88%         San.Tu.       36       69757       632       0.91%         HVA       87       69473       644       0.93%         Hipp.Aph.       92       102970       996       0.97%         CAM       6       12396       121       0.98%         HNH       85       25350       250       0.99%	Bon.Mal.Suc.	38	10678	69	0.65%
Comp. Med. Gen.       77       109210       754       0.69%         Sem.       21       21557       162       0.75%         Plen.       50       11502       90       0.78%         MM       66       163139       1296       0.79%         Cris.       64       34406       276       0.80%         SMT       75       139244       1129       0.81%         Diff.resp.       56       33093       271       0.82%         Caus.Puls.       61       33321       274       0.82%         Dig.Puls.       60       32375       277       0.86%         Alim.Fac.       37       46318       397       0.86%         Mot.Musc.       18       15264       135       0.88%         Thras.       33       14352       127       0.88%         San.Tu.       36       69757       632       0.91%         HVA       87       69473       644       0.93%         Hipp.Aph.       92       102970       996       0.97%         CAM       6       12396       121       0.98%         HNH       85       25350       250       0	Di.Dec.	65	28286	184	0.65%
Sem.21215571620.75%Plen.5011502900.78%MM6616313912960.79%Cris.64344062760.80%SMT7513924411290.81%Diff.resp.56330932710.82%Caus.Puls.6133212740.82%Dig.Puls.60323752770.86%UP1720207617290.86%Alim.Fac.37463183970.86%Mot.Musc.18152641350.88%San.Tu.36697576320.91%HVA87694736440.93%Hipp.Aph.921029709960.97%CAM6123961210.98%HNH85253502500.99%Hipp.Fract.100446984721.06%Hipp.Epid.VI91797418491.06%PHP329857110581.07%	Nat.Fac.	10	33104	217	0.66%
Plen.       50       11502       90       0.78%         MM       66       163139       1296       0.79%         Cris.       64       34406       276       0.80%         SMT       75       139244       1129       0.81%         Diff.resp.       56       33093       271       0.82%         Caus.Puls.       61       33321       274       0.82%         Dig.Puls.       60       32375       277       0.86%         UP       17       202076       1729       0.86%         Alim.Fac.       37       46318       397       0.86%         Mot.Musc.       18       15264       135       0.88%         San.Tu.       36       69757       632       0.91%         HVA       87       69473       644       0.93%         Hipp.Aph.       92       102970       996       0.97%         CAM       6       12396       121       0.98%         HNH       85       25350       250       0.99%         Hipp.Fract.       100       44698       472       1.06%         Hipp.Epid.VI       91       79741       849 <td< td=""><td>Comp. Med. Gen.</td><td>77</td><td>109210</td><td>754</td><td>0.69%</td></td<>	Comp. Med. Gen.	77	109210	754	0.69%
MM       66       163139       1296       0.79%         Cris.       64       34406       276       0.80%         SMT       75       139244       1129       0.81%         Diff.resp.       56       33093       271       0.82%         Caus.Puls.       61       33321       274       0.82%         Dig.Puls.       60       32375       277       0.86%         UP       17       202076       1729       0.86%         Alim.Fac.       37       46318       397       0.86%         Mot.Musc.       18       15264       135       0.88%         Thras.       33       14352       127       0.88%         San.Tu.       36       69757       632       0.91%         HVA       87       69473       644       0.93%         Hipp.Aph.       92       102970       996       0.97%         CAM       6       12396       121       0.98%         HNH       85       25350       250       0.99%         Hipp.Prorth.       88       47475       483       1.02%         Hipp.Epid.VI       91       79741       849       <	Sem.	21	21557	162	0.75%
Cris.64344062760.80%SMT7513924411290.81%Diff.resp.56330932710.82%Caus.Puls.61333212740.82%Dig.Puls.60323752770.86%UP1720207617290.86%Alim.Fac.37463183970.86%Mot.Musc.18152641350.88%Thras.33143521270.88%San.Tu.36697576320.91%HVA87694736440.93%Hipp.Aph.921029709960.97%CAM6123961210.98%HNH85253502500.99%Hipp.Fract.100446984721.06%Hipp.Epid.VI91797418491.06%PHP329857110581.07%	Plen.	50	11502	90	0.78%
SMT       75       139244       1129       0.81 %         Diff.resp.       56       33093       271       0.82 %         Caus.Puls.       61       33321       274       0.82 %         Dig.Puls.       60       32375       277       0.86 %         UP       17       202076       1729       0.86 %         Alim.Fac.       37       46318       397       0.86 %         Mot.Musc.       18       15264       135       0.88 %         Thras.       33       14352       127       0.88 %         San.Tu.       36       69757       632       0.91 %         HVA       87       69473       644       0.93 %         Hipp.Aph.       92       102970       996       0.97 %         CAM       6       12396       121       0.98 %         HNH       85       25350       250       0.99 %         Hipp.Prorrh.       88       47475       483       1.02 %         Hipp.Epid.VI       91       79741       849       1.06 %         PHP       32       98571       1058       1.07 %	MM	66	163139	1296	0.79%
Diff.resp.       56       33093       271       0.82%         Caus.Puls.       61       33321       274       0.82%         Dig.Puls.       60       32375       277       0.86%         UP       17       202076       1729       0.86%         Alim.Fac.       37       46318       397       0.86%         Mot.Musc.       18       15264       135       0.88%         Thras.       33       14352       127       0.88%         San.Tu.       36       69757       632       0.91%         HVA       87       69473       644       0.93%         Hipp.Aph.       92       102970       996       0.97%         CAM       6       12396       121       0.98%         HNH       85       25350       250       0.99%         Hipp.Prorth.       88       47475       483       1.02%         Hipp.Epid.VI       91       79741       849       1.06%         PHP       32       98571       1058       1.07%	Cris.	64	34406	276	0.80%
Caus.Puls.       61       33321       274       0.82%         Dig.Puls.       60       32375       277       0.86%         UP       17       202076       1729       0.86%         Alim.Fac.       37       46318       397       0.86%         Mot.Musc.       18       15264       135       0.88%         Thras.       33       14352       127       0.88%         San.Tu.       36       69757       632       0.91%         HVA       87       69473       644       0.93%         Hipp.Aph.       92       102970       996       0.97%         CAM       6       12396       121       0.98%         HNH       85       25350       250       0.99%         Hipp.Prorrh.       88       47475       483       1.02%         Hipp.Fract.       100       44698       472       1.06%         PHP       32       98571       1058       1.07%	SMT	75	139244	1129	0.81%
Dig.Puls.       60       32375       277       0.86 %         UP       17       202076       1729       0.86 %         Alim.Fac.       37       46318       397       0.86 %         Mot.Musc.       18       15264       135       0.88 %         Thras.       33       14352       127       0.88 %         San.Tu.       36       69757       632       0.91 %         HVA       87       69473       644       0.93 %         Hipp.Aph.       92       102970       996       0.97 %         CAM       6       12396       121       0.98 %         HNH       85       25350       250       0.99 %         Hipp.Prorrh.       88       47475       483       1.02 %         Hipp.Epid.VI       91       79741       849       1.06 %         PHP       32       98571       1058       1.07 %	Diff.resp.	56	33093	271	0.82%
UP         17         202076         1729         0.86%           Alim.Fac.         37         46318         397         0.86%           Mot.Musc.         18         15264         135         0.88%           Thras.         33         14352         127         0.88%           San.Tu.         36         69757         632         0.91%           HVA         87         69473         644         0.93%           Hipp.Aph.         92         102970         996         0.97%           CAM         6         12396         121         0.98%           HNH         85         25350         250         0.99%           Hipp.Prorth.         88         47475         483         1.02%           Hipp.Fract.         100         44698         472         1.06%           PHP         32         98571         1058         1.07%	Caus.Puls.	61	33321	274	0.82%
Alim.Fac.       37       46318       397       0.86%         Mot.Musc.       18       15264       135       0.88%         Thras.       33       14352       127       0.88%         San.Tu.       36       69757       632       0.91%         HVA       87       69473       644       0.93%         Hipp.Aph.       92       102970       996       0.97%         CAM       6       12396       121       0.98%         HNH       85       25350       250       0.99%         Hipp.Prorrh.       88       47475       483       1.02%         Hipp.Fract.       100       44698       472       1.06%         PHP       32       98571       1058       1.07%	Dig.Puls.	60	$3^{2}375$	277	o.86%
Mot.Musc.         18         15264         135         0.88%           Thras.         33         14352         127         0.88%           San.Tu.         36         69757         632         0.91%           HVA         87         69473         644         0.93%           Hipp.Aph.         92         102970         996         0.97%           CAM         6         12396         121         0.98%           HNH         85         25350         250         0.99%           Hipp.Prorrh.         88         47475         483         1.02%           Hipp.Fract.         100         44698         472         1.06%           Hipp.Epid.VI         91         79741         849         1.06%           PHP         32         98571         1058         1.07%	UP	17	202076	1729	o.86%
Thras.       33       14352       127       0.88%         San.Tu.       36       69757       632       0.91%         HVA       87       69473       644       0.93%         Hipp.Aph.       92       102970       996       0.97%         CAM       6       12396       121       0.98%         HNH       85       25350       250       0.99%         Hipp.Prorrh.       88       47475       483       1.02%         Hipp.Fract.       100       44698       472       1.06%         Hipp.Epid.VI       91       79741       849       1.06%         PHP       32       98571       1058       1.07%	Alim.Fac.	37	46318	397	o.86%
San.Tu.       36       69757       632       0.91%         HVA       87       69473       644       0.93%         Hipp.Aph.       92       102970       996       0.97%         CAM       6       12396       121       0.98%         HNH       85       25350       250       0.99%         Hipp.Prorrh.       88       47475       483       1.02%         Hipp.Fract.       100       44698       472       1.06%         Hipp.Epid.VI       91       79741       849       1.06%         PHP       32       98571       1058       1.07%	Mot.Musc.	18	15264	135	o.88%
HVA       87       69473       644       0.93%         Hipp.Aph.       92       102970       996       0.97%         CAM       6       12396       121       0.98%         HNH       85       25350       250       0.99%         Hipp.Prorrh.       88       47475       483       1.02%         Hipp.Fract.       100       44698       472       1.06%         Hipp.Epid.VI       91       79741       849       1.06%         PHP       32       98571       1058       1.07%	Thras.	33	14352	127	o.88%
Hipp.Aph.921029709960.97%CAM6123961210.98%HNH85253502500.99%Hipp.Prorrh.88474754831.02%Hipp.Fract.100446984721.06%Hipp.Epid.VI91797418491.06%PHP329857110581.07%	San.Tu.	36	69757	632	0.91%
CAM6123961210.98%HNH85253502500.99%Hipp.Prorrh.88474754831.02%Hipp.Fract.100446984721.06%Hipp.Epid.VI91797418491.06%PHP329857110581.07%	HVA	87	69473	644	0.93%
CAM6123961210.98%HNH85253502500.99%Hipp.Prorrh.88474754831.02%Hipp.Fract.100446984721.06%Hipp.Epid.VI91797418491.06%PHP329857110581.07%	Hipp.Aph.	92	102970	996	0.97%
Hipp.Prorrh.88474754831.02%Hipp.Fract.100446984721.06%Hipp.Epid.VI91797418491.06%PHP329857110581.07%	CAM	6	12396	121	0.98%
Hipp.Fract.100446984721.06%Hipp.Epid.VI91797418491.06%PHP329857110581.07%	HNH	85	25350	250	0.99%
Hipp.Epid.VI         91         79741         849         1.06%           PHP         32         98571         1058         1.07%	Hipp.Prorrh.	88		483	1.02%
PHP         32         98571         1058         1.07%	Hipp.Fract.	100	44698	472	1.06%
PHP 32 98571 1058 1.07%	Hipp.Epid.VI	91	79741	849	1.06%
	PHP	32		1058	1.07%
	Diff.Feb.	45			1.08%

Text	tlg text id	Word count	Incidence	Percentage
Hipp.Prog.	99	43712	476	1.09%
Hipp.Epid.III	90	42913	482	1.12%
Cur.Rat.Ven.Sect.	70	10398	119	1.14%
Hipp.Epid.I	89	40571	465	1.15%
Praen.	83	11530	135	1.17%
Caus.Symp.	44	30535	358	1.17%
Hipp.Off.Med.	101	43376	509	1.17%
Musc.Diss.	102	15368	182	1.18%
AA	11	81247	1013	1.25%
Loc.Affect.	57	72559	923	1.27%
Diff.Puls.	59	44391	586	1.32%
Hipp.Art.	95	55499	738	1.33%
Ars Med.	7	16776	231	1.38%
Praes.Puls.	62	37699	558	1.48%
Syn.Puls.	63	16348	274	1.68%

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Text	tlg text id	Word count	Incidence	Percentage
Ant.	78	28945	195	0.67%
Comp. Med. Loc.	76	150524	1018	0.68%
Ther.Pis.	79	13556	102	0.75%
Comp. Med. Gen.	77	109210	1039	0.95%
Praen.	83	11530	112	0.97%
HVA	87	69473	773	1.11%
Hipp.Prorrh.	88	47475	533	1.12%
Hipp.Epid.III	90	42913	515	1.20%
Hipp.Epid.VI	91	79741	984	1.23%
Hipp.Art.	95	55499	710	1.28%
Cur.Rat.Ven.Sect.	70	10398	135	1.30%
Hipp.Epid.I	89	40571	529	1.30%
Hipp.Aph.	92	102970	1353	1.31%
HNH	85	25350	341	1.35%
Alim.Fac.	37	46318	624	1.35%
РНР	32	98571	1342	1.36%
Hipp.Fract.	100	44698	622	1.39%
AA	11	81247	1133	1.39%
Loc.Affect.	57	72559	1030	1.42%
Hipp.Prog.	99	43712	643	1.47%
Syn.Puls.	63	16348	246	1.50%
CAM	6	12396	187	1.51%
Hipp.Elem.	8	13951	211	1.51%
Bon.Mal.Suc.	38	10678	162	1.52%
Sem.	21	21557	331	1.54%
SMT	75	139244	2152	1.55%
Hipp.Off.Med.	101	43376	674	1.55%
MM	66	163139	2537	1.56%
Diff.Puls.	59	44391	699	1.57%
MMG	67	23690	377	1.59%
Plen.	50	11502	184	1.60%
San.Tu.	36	69757	1129	1.62%

Text	tlg text id	Word count	Incidence	Percentage
Diff.resp.	56	33093	538	1.63%
Nat.Fac.	10	33104	539	1.63%
Dig.Puls.	60	32375	529	1.63%
Diff.Feb.	45	21703	365	1.68%
Di.Dec.	65	28286	489	1.73%
UP	17	202076	3496	1.73%
Cris.	64	34406	627	1.82%
Thras.	33	14352	265	1.85%
Temp.	9	28600	540	1.89%
Musc.Diss.	102	15368	291	1.89%
Praes.Puls.	62	37699	721	1.91%
Caus.Puls.	61	33321	645	1.94%
Caus.Symp.	44	30535	593	1.94%
Mot.Musc.	18	15264	317	2.08%
Ars Med.	7	16776	362	2.16%

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Text	tlg text id	Word count	Incidence	Percentage
Ther.Pis.	79	13556	14	0.10%
Comp. Med. Loc.	76	150524	374	0.25%
Ant.	78	28945	72	0.25%
Musc.Diss.	102	15368	42	0.27%
Comp. Med. Gen.	77	109210	359	0.33%
SMT	75	139244	521	0.37%
Diff.Puls.	59	44391	176	0.40%
Diff.Feb.	45	21703	89	0.41%
РНР	32	98571	424	0.43%
Praes.Puls.	62	37699	168	0.45%
UP	17	202076	918	0.45%
Hipp.Epid.I	89	40571	186	0.46%
Bon.Mal.Suc.	38	10678	50	0.47%
San.Tu.	36	69757	328	0.47%
Alim.Fac.	37	46318	222	0.48%
HNH	85	25350	122	0.48%
Plen.	50	11502	56	0.49%
Loc.Affect.	57	72559	357	0.49%
CAM	6	12396	61	0.49%
MMG	67	23690	117	0.49%
Hipp.Aph.	92	102970	509	0.49%
Ars Med.	7	16776	83	0.49%
Caus.Puls.	61	33321	165	0.50%
Diff.resp.	56	33093	164	0.50%
Hipp.Prorrh.	88	47475	238	0.50%
Hipp.Fract.	100	44698	227	0.51%
Cris.	64	34406	175	0.51%
Di.Dec.	65	28286	144	0.51%
Cur.Rat.Ven.Sect.	70	10398	53	0.51%
Hipp.Art.	95	55499	284	0.51%
Caus.Symp.	44	30535	157	0.51%
Thras.	33	14352	74	0.52%

Text	tlg text id	Word count	Incidence	Percentage
Hipp.Prog.	99	43712	227	0.52%
Sem.	21	21557	112	0.52%
Hipp.Epid.III	90	42913	223	0.52%
Temp.	9	28600	149	0.52%
AA	11	81247	424	0.52%
Hipp.Epid.VI	91	79741	417	0.52%
Hipp.Elem.	8	13951	73	0.52%
Hipp.Off.Med.	101	43376	230	0.53%
Nat.Fac.	10	33104	177	0.53%
HVA	87	69473	383	0.55%
Dig.Puls.	60	32375	184	0.57%
MM	66	163139	937	0.57%
Syn.Puls.	63	16348	101	0.62%
Mot.Musc.	18	15264	108	0.71%
Praen.	83	11530	83	0.72%

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Ant.7828945800.28%Comp. Med. Gen.771092103180.29%Temp.928600860.30%MMG6723690750.32%Caus.Symp.44305351040.34%UP172020767060.35%MM661631395830.36%Loc.Affect.57725592710.37%Bon.Mal.Suc.3810678400.37%Ther.Pis.7913556520.38%Hipp.Aph.921029703990.39%AA11812473150.39%Hipp.Fract.100446981750.39%Nat.Fac.10331041300.39%CAM612396490.40%Praes.Puls.62376991510.40%Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorrh.88474752010.42%Plen.5011502500.43%Hipp.Off.Med.101433761890.44%	Text	tlg text id	Word count	Incidence	Percentage
Sem.       21       21557       58       0.27%         Ant.       78       28945       80       0.28%         Comp. Med. Gen.       77       109210       318       0.29%         Temp.       9       28600       86       0.30%         MMG       67       23690       75       0.32%         Caus.Symp.       44       30535       104       0.34%         UP       17       202076       706       0.35%         MM       66       163139       583       0.36%         Loc.Affect.       57       72559       271       0.37%         Bon.Mal.Suc.       38       10678       40       0.37%         Ther.Pis.       79       13556       52       0.38%         Hipp.Aph.       92       102970       399       0.39%         AA       11       81247       315       0.39%         Nat.Fac.       100       44698       175       0.39%         CAM       6       12396       49       0.40%         Praes.Puls.       62       37699       151       0.40%         Caus.Puls.       61       33321       136       0	Mot.Musc.	18	15264	32	0.21%
Ant.       78       28945       80       0.28%         Comp. Med. Gen.       77       109210       318       0.29%         Temp.       9       28600       86       0.30%         MMG       67       23690       75       0.32%         Caus.Symp.       44       30535       104       0.34%         UP       17       202076       706       0.35%         MM       66       163139       583       0.36%         Loc.Affect.       57       72559       271       0.37%         Bon.Mal.Suc.       38       10678       40       0.37%         Ther.Pis.       79       13556       52       0.38%         Hipp.Aph.       92       102970       399       0.39%         AA       11       81247       315       0.39%         Nat.Fac.       100       44698       175       0.39%         Nat.Fac.       10       33104       130       0.39%         CAM       6       12396       49       0.40%         Praes.Puls.       62       37699       151       0.40%         Caus.Puls.       61       33321       136	Comp. Med. Loc.	76	150524	397	0.26%
Comp. Med. Gen.771092103180.29%Temp.928600860.30%MMG6723690750.32%Caus.Symp.44305351040.34%UP172020767060.35%MM661631395830.36%Loc.Affect.57725592710.37%Bon.Mal.Suc.3810678400.37%Ther.Pis.7913556520.38%Hipp.Aph.921029703990.39%AA11812473150.39%Hipp.Fract.100446981750.39%Nat.Fac.10331041300.39%Hipp.Elem.813951550.39%CAM612396490.40%Praes.Puls.62376991510.40%Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorth.88474752010.42%Plen.5011502500.43%Hipp.Off.Med.101433761890.44%Hipp.Art.95554992440.44%Hipp.Epid.VI91797413620.45%Hipp.Epid.VI91797413280.45%HVA87694733280.47%	Sem.	21	21557	58	0.27%
Temp.928600860.30%MMG6723690750.32%Caus.Symp.44305351040.34%UP172020767060.35%MM661631395830.36%Loc.Affect.57725592710.37%Bon.Mal.Suc.3810678400.37%Ther.Pis.7913556520.38%Hipp.Aph.921029703990.39%AA11812473150.39%Hipp.Fract.100446981750.39%Nat.Fac.10331041300.39%Hipp.Elem.813951550.39%CAM612396490.40%Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorrh.88474752010.42%Plen.5011502500.43%Hipp.Off.Med.101433761890.44%Hipp.Art.95554992440.44%Hipp.Epid.VI91797413620.45%HVA87694733280.47%	Ant.	78	28945	80	0.28%
MMG         67         23690         75         0.32%           Caus.Symp.         44         30535         104         0.34%           UP         17         202076         706         0.35%           MM         66         163139         583         0.36%           Loc.Affect.         57         72559         271         0.37%           Bon.Mal.Suc.         38         10678         40         0.37%           Ther.Pis.         79         13556         52         0.38%           Hipp.Aph.         92         102970         399         0.39%           AA         11         81247         315         0.39%           Nat.Fac.         100         44698         175         0.39%           Nat.Fac.         10         33104         130         0.39%           Hipp.Elem.         8         13951         55         0.39%           Caus.Puls.         61         33321         136         0.41%           Diff.Feb.         45         21703         89         0.41%           Cris.         64         34406         144         0.42%           San.Tu.         36         69757	Comp. Med. Gen.	77	109210	318	0.29%
Caus.Symp.44305351040.34%UP172020767060.35%MM661631395830.36%Loc.Affect.57725592710.37%Bon.Mal.Suc.3810678400.37%Ther.Pis.7913556520.38%Hipp.Aph.921029703990.39%AA11812473150.39%Hipp.Fract.100446981750.39%Nat.Fac.10331041300.39%Hipp.Elem.813951550.39%CAM612396490.40%Praes.Puls.62376991510.40%Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorrh.88474752010.42%Hipp.Off.Med.101433761890.44%Hipp.Epid.VI91797413620.45%Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	Temp.	9	28600	86	0.30%
UP172020767060.35%MM661631395830.36%Loc.Affect.57725592710.37%Bon.Mal.Suc.3810678400.37%Ther.Pis.7913556520.38%Hipp.Aph.921029703990.39%AA11812473150.39%Hipp.Fract.100446981750.39%Nat.Fac.10331041300.39%Hipp.Elem.813951550.39%CAM612396490.40%Praes.Puls.62376991510.40%Caus.Puls.61333211360.41%Diff.Feb.4521703890.41%Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorrh.88474752010.42%Hipp.Off.Med.101433761890.44%Hipp.Epid.VI91797413620.45%Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	MMG	67	23690	75	0.32%
MM661631395830.36%Loc.Affect.57725592710.37%Bon.Mal.Suc.3810678400.37%Ther.Pis.7913556520.38%Hipp.Aph.921029703990.39%AA11812473150.39%Hipp.Fract.100446981750.39%Nat.Fac.10331041300.39%Hipp.Elem.813951550.39%CAM612396490.40%Praes.Puls.62376991510.40%Caus.Puls.61333211360.41%Diff.Feb.4521703890.41%Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorrh.88474752010.43%Hipp.Off.Med.101433761890.44%Hipp.Art.95554992440.44%Hipp.Epid.VI91797413620.45%Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	Caus.Symp.	44	30535	104	0.34%
Loc.Affect.57725592710.37%Bon.Mal.Suc.3810678400.37%Ther.Pis.7913556520.38%Hipp.Aph.921029703990.39%AA11812473150.39%Hipp.Fract.100446981750.39%Nat.Fac.10331041300.39%Hipp.Elem.813951550.39%CAM612396490.40%Praes.Puls.62376991510.40%Caus.Puls.61333211360.41%Diff.Feb.4521703890.41%Cris.64344061440.42%Hipp.Prorth.88474752010.42%Hipp.Protrh.5011502500.43%Hipp.Off.Med.101433761890.44%Hipp.Epid.VI91797413620.45%Kurat.Ven.Sect.7010398480.46%HVA87694733280.47%	UP	17	202076	706	0.35%
Bon.Mal.Suc.3810678400.37%Ther.Pis.7913556520.38%Hipp.Aph.921029703990.39%AA11812473150.39%AA11812473150.39%Hipp.Fract.100446981750.39%Nat.Fac.10331041300.39%Hipp.Elem.813951550.39%CAM612396490.40%Praes.Puls.62376991510.40%Caus.Puls.61333211360.41%Diff.Feb.4521703890.41%Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorrh.88474752010.42%Plen.5011502500.43%Hipp.Off.Med.101433761890.44%Hipp.Epid.VI91797413620.45%Kur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	MM	66	163139	583	0.36%
Ther.Pis.7913556520.38%Hipp.Aph.921029703990.39%AA11812473150.39%AA11812473150.39%Hipp.Fract.100446981750.39%Nat.Fac.10331041300.39%Hipp.Elem.813951550.39%CAM612396490.40%Praes.Puls.62376991510.40%Caus.Puls.6133211360.41%Diff.Feb.4521703890.41%Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorth.88474752010.42%Hipp.Off.Med.101433761890.44%Hipp.Art.95554992440.44%Hipp.Epid.VI91797413620.45%HVA87694733280.47%	Loc.Affect.	57	72559	271	0.37%
Hipp.Aph.921029703990.39%AA11812473150.39%Hipp.Fract.100446981750.39%Nat.Fac.10331041300.39%Hipp.Elem.813951550.39%CAM612396490.40%Praes.Puls.62376991510.40%Caus.Puls.61333211360.41%Diff.Feb.4521703890.41%Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorth.88474752010.42%Hipp.Off.Med.101433761890.44%Hipp.Epid.VI91797413620.45%HVA87694733280.47%	Bon.Mal.Suc.	38	10678	40	0.37%
AA11812473150.39%Hipp.Fract.100446981750.39%Nat.Fac.10331041300.39%Hipp.Elem.813951550.39%CAM612396490.40%Praes.Puls.62376991510.40%Caus.Puls.61333211360.41%Diff.Feb.4521703890.41%Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorrh.88474752010.42%Plen.5011502500.43%Hipp.Off.Med.101433761890.44%Hipp.Epid.VI91797413620.45%Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	Ther.Pis.	79	13556	52	0.38%
Hipp.Fract.100446981750.39%Nat.Fac.10331041300.39%Hipp.Elem.813951550.39%CAM612396490.40%Praes.Puls.62376991510.40%Caus.Puls.61333211360.41%Diff.Feb.4521703890.41%Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorth.88474752010.42%Plen.5011502500.43%Hipp.Off.Med.101433761890.44%Hipp.Epid.VI91797413620.45%Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	Hipp.Aph.	92	102970	399	0.39%
Nat.Fac.       10       33104       130       0.39%         Hipp.Elem.       8       13951       55       0.39%         CAM       6       12396       49       0.40%         Praes.Puls.       62       37699       151       0.40%         Caus.Puls.       61       33321       136       0.41%         Diff.Feb.       45       21703       89       0.41%         Cris.       64       34406       144       0.42%         San.Tu.       36       69757       293       0.42%         Hipp.Prorth.       88       47475       201       0.42%         Plen.       50       11502       50       0.43%         Hipp.Off.Med.       101       43376       189       0.44%         Hipp.Epid.VI       91       79741       362       0.45%         Cur.Rat.Ven.Sect.       70       10398       48       0.46%         HVA       87       69473       328       0.47%	AA	11	81247	315	0.39%
Hipp,Elem.813951550.39%CAM612396490.40%Praes.Puls.62376991510.40%Caus.Puls.61333211360.41%Diff.Feb.4521703890.41%Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorth.88474752010.42%Plen.5011502500.43%Hipp.Off.Med.101433761890.44%Hipp.Epid.VI91797413620.45%Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	Hipp.Fract.	100	44698	175	0.39%
CAM612396490.40 %Praes.Puls.62376991510.40 %Caus.Puls.61333211360.41 %Diff.Feb.4521703890.41 %Cris.64344061440.42 %San.Tu.36697572930.42 %Hipp.Prorrh.88474752010.42 %Plen.5011502500.43 %Hipp.Off.Med.101433761890.44 %Hipp.Epid.VI91797413620.45 %Cur.Rat.Ven.Sect.7010398480.46 %HVA87694733280.47 %	Nat.Fac.	10	33104	130	0.39%
Praes.Puls.62376991510.40 %Caus.Puls.61333211360.41 %Diff.Feb.4521703890.41 %Cris.64344061440.42 %San.Tu.36697572930.42 %Hipp.Prorrh.88474752010.42 %Plen.5011502500.43 %Hipp.Off.Med.101433761890.44 %Hipp.Epid.VI91797413620.45 %Cur.Rat.Ven.Sect.7010398480.46 %HVA87694733280.47 %	Hipp.Elem.	8	13951	55	0.39%
Caus.Puls.61333211360.41%Diff.Feb.4521703890.41%Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorrh.88474752010.42%Plen.5011502500.43%Hipp.Off.Med.101433761890.44%Hipp.Epid.VI91797413620.45%Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	CAM	6	12396	49	0.40%
Diff.Feb.4521703890.41%Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorrh.88474752010.42%Plen.5011502500.43%Hipp.Off.Med.101433761890.44%Hipp.Art.95554992440.44%Hipp.Epid.VI91797413620.45%Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	Praes.Puls.	62	37699	151	0.40%
Cris.64344061440.42%San.Tu.36697572930.42%Hipp.Prorrh.88474752010.42%Plen.5011502500.43%Hipp.Off.Med.101433761890.44%Hipp.Art.95554992440.44%Hipp.Epid.VI91797413620.45%Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	Caus.Puls.	61	33321	136	0.41%
San.Tu.36697572930.42%Hipp.Prorrh.88474752010.42%Plen.5011502500.43%Hipp.Off.Med.101433761890.44%Hipp.Art.95554992440.44%Hipp.Epid.VI91797413620.45%Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	Diff.Feb.	45	21703	89	0.41%
Hipp.Prorrh.88474752010.42%Plen.5011502500.43%Hipp.Off.Med.101433761890.44%Hipp.Art.95554992440.44%Hipp.Epid.VI91797413620.45%Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	Cris.	64	34406	144	0.42%
Plen.5011502500.43%Hipp.Off.Med.101433761890.44%Hipp.Art.95554992440.44%Hipp.Epid.VI91797413620.45%Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	San.Tu.	36	69757	293	0.42%
Hipp.Off.Med.       101       43376       189       0.44%         Hipp.Art.       95       55499       244       0.44%         Hipp.Epid.VI       91       79741       362       0.45%         Cur.Rat.Ven.Sect.       70       10398       48       0.46%         HVA       87       69473       328       0.47%	Hipp.Prorrh.	88	47475	201	0.42%
Hipp.Art.95554992440.44%Hipp.Epid.VI91797413620.45%Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	Plen.	50	11502	50	0.43%
Hipp.Epid.VI91797413620.45%Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	Hipp.Off.Med.	101	43376	189	0.44%
Cur.Rat.Ven.Sect.7010398480.46%HVA87694733280.47%	Hipp.Art.	95	55499	244	0.44%
HVA 87 69473 328 0.47%	Hipp.Epid.VI	91	79741	362	0.45%
	Cur.Rat.Ven.Sect.	70	10398	48	0.46%
Syn.Puls. 63 16348 79 0.48%	HVA	87	69473	328	0.47%
	Syn.Puls.	63	16348	79	0.48%

Text	tlg text id	Word count	Incidence	Percentage
Praen.	83	11530	57	0.49%
Di.Dec.	65	28286	143	0.51%
Hipp.Prog.	99	43712	234	0.54%
Dig.Puls.	60	32375	182	0.56%
HNH	85	25350	145	0.57%
Musc.Diss.	102	15368	90	0.59%
Diff.resp.	56	33093	206	0.62%
PHP	32	98571	632	0.64%
Hipp.Epid.III	90	42913	281	0.65%
Alim.Fac.	37	46318	307	0.66%
Ars Med.	7	16776	112	0.67%
Diff.Puls.	59	44391	312	0.70%
Thras.	33	14352	103	0.72%
SMT	75	139244	1068	0.77%
Hipp.Epid.I	89	40571	320	0.79%

# πρός

Text	tlg text id	Word count	Incidence	Percentage
Hipp.Epid.III	90	42913	95	0.22%
Cris.	64	34406	77	0.22%
Hipp.Prorrh.	88	47475	116	0.24%
Caus.Puls.	61	33321	83	0.25%
Bon.Mal.Suc.	38	10678	27	0.25%
Diff.Feb.	45	21703	55	0.25%
MMG	67	23690	61	0.26%
Diff.resp.	56	33093	87	0.26%
HVA	87	69473	184	0.26%
Hipp.Epid.I	89	40571	113	0.28%
Loc.Affect.	57	72559	204	0.28%
Hipp.Aph.	92	102970	296	0.29%
Praes.Puls.	62	37699	109	0.29%
Caus.Symp.	44	30535	89	0.29%
Di.Dec.	65	28286	86	0.30%
MM	66	163139	507	0.31%
Hipp.Epid.VI	91	79741	251	0.31%
Syn.Puls.	63	16348	53	0.32%
Hipp.Prog.	99	43712	149	0.34%
Alim.Fac.	37	46318	159	0.34%
Thras.	33	14352	50	0.35%
San.Tu.	36	69757	252	0.36%
Ars Med.	7	16776	61	0.36%
Diff.Puls.	59	44391	166	0.37%
Nat.Fac.	10	33104	124	0.37%
Cur.Rat.Ven.Sect.	70	10398	39	0.38%
Hipp.Elem.	8	13951	55	0.39%
HNH	85	25350	106	0.42%
Praen.	83	11530	49	0.42%
Mot.Musc.	18	15264	68	0.45%
AA	11	81247	362	0.45%
РНР	32	98571	452	0.46%

Text	tlg text id	Word count	Incidence	Percentage
Hipp.Art.	95	55499	255	0.46%
Hipp.Fract.	100	44698	206	0.46%
Dig.Puls.	60	32375	151	0.47%
CAM	6	12396	58	0.47%
Musc.Diss.	102	15368	74	0.48%
UP	17	202076	980	0.48%
SMT	75	139244	693	0.50%
Sem.	21	21557	109	0.51%
Temp.	9	28600	151	0.53%
textbfTHER.PIS	79	13556	72	0.53%
Ther.Pis.	79	13556	72	0.53%
Hipp.Off.Med.	101	43376	243	0.56%
Comp. Med. Gen.	77	109210	765	0.70%
Plen.	50	11502	81	0.70%
Ant.	78	28945	215	0.74%
Comp. Med. Loc.	76	150524	1288	0.86%

#### τε

Text	tlg text id	Word count	Incidence	Percentage
Ther.Pis.	79	13556	64	0.47%
Hipp.Prorrh.	88	47475	312	0.66%
Comp. Med. Loc.	76	150524	1049	0.70%
Mot.Musc.	18	15264	112	0.73%
Hipp.Epid.I	89	40571	298	0.73%
Hipp.Epid.III	90	42913	328	0.76%
Hipp.Fract.	100	44698	350	0.78%
Hipp.Art.	95	55499	446	0.80%
Diff.resp.	56	33093	273	0.82%
HVA	87	69473	583	0.84%
Di.Dec.	65	28286	240	0.85%
Hipp.Off.Med.	101	43376	375	0.86%
Hipp.Aph.	92	102970	911	0.88%
Caus.Puls.	61	33321	305	0.92%
Hipp.Epid.VI	91	79741	748	0.94%
Nat.Fac.	10	33104	319	0.96%
Hipp.Elem.	8	13951	135	0.97%
Comp. Med. Gen.	77	109210	1060	0.97%
Syn.Puls.	63	16348	159	0.97%
AA	11	81247	806	0.99%
Dig.Puls.	60	32375	333	1.03%
Diff.Puls.	59	44391	465	1.05%
HNH	85	25350	269	1.06%
Cur.Rat.Ven.Sect.	70	10398	112	1.08%
Sem.	21	21557	234	1.09%
MM	66	163139	1779	1.09%
Ant.	78	28945	319	1.10%
Cris.	64	34406	382	1.11%
UP	17	202076	2301	1.14%
Hipp.Prog.	99	43712	498	1.14%
Temp.	9	28600	330	1.15%
Loc.Affect.	57	72559	849	1.17%

Text	tlg text id	Word count	Incidence	Percentage
РНР	32	98571	1239	1.26%
Praen.	83	11530	152	1.32%
Praes.Puls.	62	37699	508	1.35%
Diff.Feb.	45	21703	295	1.36%
Thras.	33	14352	197	1.37%
MMG	67	23690	327	1.38%
Plen.	50	11502	160	1.39%
SMT	75	139244	2049	1.47%
Alim.Fac.	37	46318	688	1.49%
San.Tu.	36	69757	1115	1.60%
Ars Med.	7	16776	271	1.62%
CAM	6	12396	206	1.66%
Caus.Symp.	44	30535	526	1.72%
Musc.Diss.	102	15368	269	1.75%
Bon.Mal.Suc.	38	10678	217	2.03%

#### APPENDIX 27

## **Chapter Headings**

#### Chapter Headings in O

Κεφάλαια τῆς θηριακῆς Γαληνοῦ πρὸς Πισῶνα ταδε ἐστὶν ἐν τῷ βιβλίῷ προοίμιον:

- "Οτι ή θηριακή των άλλων ἐστι φαρμάκων μάλλον περισπούδαστος διὰ τῆν δύναμιν τῆς ἐνεργείας.
- (2) Ότι οἱ λογικοἱ ἀκριβεῖ τῷ λογισμῷ συντίθεμεν τα φάρμακα καὶ οὐχ ὡς ἐμπειρικοὶ ἐξ ὀνειράτων καὶ τῆς κατὰ τὴν τύχης περιπτώσεως αὐτῆς χρῆσαι λέγουσιν.
- (3) Ότι τῶν ἄλλων φαρμάκων τὰ μὲν ἐξ ὅλης ἑαυτῶν οὐσίας ἀπλῆν ἔχει τῆν δύναμιν, τὰ δὲ μικτὴν. ὡς πολλάκις ἐναντίας εἶναι τὰς ἐν τῷ ἑνὶ φαρμάκῷ δυνάμεις.
- (4) "Οτι πρώτος Ίπποκράτης ἐδίδαξεν ἡμάς καὶ τῶν ἀπλῶν φαρμάκων τὰς δυνάμεις ἐξέταξεν. καὶ ὅπως χρὴ ποιεῖσθαι τὰς ἐξ αὐτῶν γινομένας συνθέσεις.
- (5) Τίνι λόγω χρώμενοι ὁι παλαιοὶ τῶν ἰατρῶν εἰς τὸ συνθῆναι τῆν θηριακὴν ἀντίδοτον ἦλθον.
- (6) Δια τὶ δὲ τὰς ἐχἰδνας μάλλον τῶν ἄλλων θηρίων ἐπιτηδείας εἰς τῆν μίξιν τῆς θηριακῆς εἶναι νομίζομεν.
- (7) Δια τὶ δὲ τὰς κεφαλὰς καὶ τὰς οὐρὰς ἀποκόπτοντες τοῖς ἄλλοις μέρεσιν εἰς τῆν σκευαςίαν χρώμεθα.
- (8) Ότι μετά την τούτων ἀποκοπήν καὶ τὰ μερὴ τῶν ἐχίδνων πολλὴν δύναμιν ἔχει εἰς τὴν σκευαςίαν τῆς θηριακῆς.
- (9) Τίνι λόγω τὰ θηρία ἀναιροῦντα τοῖς δήγμασι πάλιν αυτὰ δύναται μιγνύμενα τῆ θηριακῆ ἀφελεῖν τοῖς δεδηγμένοις.
- (10) Ότι οί λογικοί τῶν ἰατρῶν μόνοι τὸν λόγον τοῦτον εἰδέναι βούλονται.
- (11) "Οτι ἐν ταῖς μίξεσιν τῶν ἀπλῶν φαρμάκων ἀλλα συμμίξεως καὶ ἔτερα γεννᾶται διάφορος οὐσία παρὰ τὰς μιγνυμένας δυνάμεις ἡ γραφὴ τῆς θηριακῆς. καὶ ἡ περὶ τῆς ἐν αυτὴ γενομένης παρὰ τοῖς παλαιοῖς ἰατροῖς διαφωνία. καὶ τἰς ὁ ἄριστος τῆς θηριακῆς πρὸς τὴν χρῆσιν ἐστι χρόνος. καὶ τι ῆ σύμμετρον ἐν τῆ δόσει τῆς θηριακῆς μέτρον.
- (12) Ότι μỳ μόνον πρὸς τὰ τῶν θηρίων δήγματα καὶ δηλητήρια φάρμακα ἀλλὰ καὶ πρὸς τὰ ἀλλα πάθη ἡ θηριακή βοηθεῖν δύναται.
- (13) Ότι καὶ τοῖς ὑγιαίνουσιν εἰς πολλὰ χρησίμη γίγνεται λαμβανομένη ἡ θηριακή.
- (14) Ότι χρή συνεχώς αὐτὴν λαμβάνειν πρὸς τὸ δυσπαθὲς σκευάζειν τὸ σώμα. και πότε καὶ ποσῷ μέτρῳ και πῶς ἔχοντι δεῖ χρῆσαι τῆς θηριακῆς.

APPENDICES

#### Heading in P

Γαληνοῦ πρὸς Πισῶνα περὶ τῆς θηριακῆς: - Ότὶ ἡ θηριακὴ τῶν ἄλλων ἀπάντων φαρμάκων περισπούδαστός ἐστι διὰ τῆν δύναμιν τῆς ἐνεργείας. Ότὶ καὶ τοῖς ὑγιαίνουσιν εἰς τὰ πολλὰ χρήσιμος γίγνεται λαμβανομένη ἡ θηριακὴ.

cf. (1), (13) supra

#### Heading in Frob.

Quandoquidem theriaca inter omnia alia medicamenta, maximo studio expetitur, propter vim efficaciae quam habet, et eo quod etiam sanis ad multa utilis theriaca[e] utilis existit: librum hunc quoque de Theriaca optime Piso ... etc.

#### Chapter Headings in Chartier (and in Kühn)

- Πίσωνι τὸν λόγον ἀνατίθησιν, Ἀνδρόμαχον ἐπαινεῖ, καὶ τῆς γραφθησομένης πραγματείας τὸ αἴτιον ἐκδηλοῦ ὁ Γαληνός.
- 2. Θηριακής ἔπαινος καὶ διάγνωσις, καὶ τῶν περὶ ταύτην ἀρχόντων Ῥωμαίων σπουδή.
- 3. Τίνος ἕνεκα ἐκ πολλῶν σύγκειται ἡ ἀντίδοτος· ἔμφυτον δὲ πᾶσιν δύναμιν ὑπάρχειν, ἡν λόγῷ τε καὶ | αἰσθήσει κρίνομεν. κρίνομεν Chart. ἰσχνεύομεν Kühn
- 4. Τὰ ἀπλᾶ τῶν φαρμάκων συνθέτους ὡς ἐπὶ τὸ πολὺ ἔχειν δυνάμεις καὶ διάφορα τοῦ σώματος μόρια βλάπτειν τε καὶ ὠφελεῖν, καὶ διαφόροις διάφορα προσήκειν.
- 5. Τί ποτ' ἐπήγαγε τοὺς ἰατροὺς πρὸς τὴν σύγκρασιν πολλῶν ἀπλῶν. καὶ τίς ὁ πρῶτος ἐπιβαλὼν τῆ θηριακῆ τὰς ἐχίδνας.
- 6–7. Ἀνδρομάχου πρεσβυτέρου, Νέρωνος ἀρχιάτρου θηριακὴ δι' ἐχιδνῶν ἡ καλουμένη Γαλήνη.
- Διὰ τὶ ὁ Ἀνδρόμαχος τὴν ἔχιδναν μάλλον ἢ ἄλλον τινὰ ὄφιν τῆ θηριακῆ ἐπέμιξε; καὶ περὶ Κλεοπάτρας θανάτου ἀκριβὴς ἱστορία.
- 9. Τί δή ποτε τῆ θηριακῆ ὁλόκληρος ἡ ἔχιδνα οὐκ ἐπιτίθεται· πολλάς τε ἐκ τῶν ζώων ἡμᾶς λαμβάνειν τὰς θεραπείας.
- Πώς τὰ βλαβερὰ ἐνίοτε ἔχουσιν ὠφελεῖν· μίαν τε ἐκ πολλῶν γίγνεσθαι ποιότητα ἐν τοῖς μικτοῖς φαρμάκοις.
- Άσκληπιάδου τε καὶ Ἐπικούρου ἀντίρρησις, τῶν τὴν ἀλλοίωσιν ἀποφασκόντων καὶ τὰ τῆς φύσεως ἔργα πρὸς τοὺς ἀτόμους τε καὶ ὄγκους ἀναφερόντων.
- Έκαστα τὰ τὴν θηριακὴν συντιθέμενα ἀκριβῶς ἐξεταστέον. καὶ τὴν Ἀνδρομάχου γραφὴν προκριτέον.
- 13. Πῶς κατασκευαστέοι οἴ τε ἡδύχροοι, σκιλλητικοὶ καὶ θηριακοὶ ἀρτίσκοι.
- 14. Θηριακής σκευασία, ἀποθήκη, ἡλικία, κρίσις, δόσις.

- 15. Πρός πόσας νόσους βοηθεῖν πέφυκεν ἡ θηριακή.
- 16. Μεθοδικών έλεγχος ἄχρηστον εἶναι νομιζόντων τὸ εἰδέναι τὰς τῶν νόσων αἰτίας· καὶ πάλιν τὰ χρήσιμα τῆς θηριακῆς διεξίησι.
- 17. Πόσον καὶ πότε καὶ ὑφ' ὧν ληπτέον τὴν θηριακήν.
- 18. Περὶ ἁλῶν θηριακῶν.
- 19. Περὶ ἁλῶν θηριακῶν κατασκευῆς.

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## Index Locorum

Aelian		Celsus	
NA		de Medicina	
8.13	102	23.3-24.1	171
A		3.21.7.4-5	227
Aelianus Tacticus Tactica		4.1	242
	70	Commidae	
P 3 1–9	52	Cyranides	108
Aelius Promotus		3.19	108
Ven.		Dio Cassius	
	217	48.20	16
15.29–31	217	40.20 54.26.1	10 14
Aëtius		55.10.6	14
Iatrica		59.11	14
XIII 22.1–9	104, 207	74.5.5	14
XIII 23.1–23	132, 237	74.3.3	-4
Aiii 23.i 23	132, 237	Dio Chrysostom	
[Alexander Aphrod.]		Or.	
Problemata		1 23-24	177
1 16.5-7	154		-11
48-49	183	Diogenes Laertius	
10 10	5	Vitae philosophorum	
Apollodorus		980.6-7	183
Poliorketika		5 1	0
137.1-4	52	Dioscorides	
	-	de Materia Medica	
Appian		I Pr 1.1	186
Mithridatica		I 13 (1).1–10	228
538.1-539.1	247	I 14 1–2	126, 228
		II Arg.	186
Aristotle		V 39 2 3	227
Historia Animalium			
594a 4–6	132, 237	Erotian	
Magna Moralia		Vocum Hippocraticarum o	collectio
1208b 10	181	29.3	186
Metaphysics			
1086a 10–11	180	Euripides	
		Hecuba	
Athenaeus		568-570	104, 208
Deipn.		Supp.	
7 86.28	52	447-449	234
Aulus Gellius		Eusebius	
Noctes Atticae		Historia ecclesiastica	
17.10.3.1-2	122	10.6.1.5-6	56
		10.7.1.9	56

$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Vita Constantini		I: XIV 44.10-15	229
I: XIV 45.5-729.32Flavius JosephusI: XIV 45.5-729.32Antiquitates JudaicaeI: XIV 46.2-52386 292.3-293.158-59I: XIV 46.2-1299.3212 58.1-7 (95.)59I: XIV 48.13-49.3136. 2418 95.1-359I: XIV 49.3-1324112 58.1-7 (95.)59I: XIV 50.1-51.6130. 233FrontinusI: XIV 53.7-966Strat.I: XIV 56.15-57.12284.7.0-11185I: XIV 56.15-65.3241GalenI: XIV 64.15-65.351.177AAI: XIV 50.4-65.351.177AAI: XIV 92.14-73.2126I: II 25.5-747I: XIV 92.14-73.2126I: II 20.14-17209I: XIV 93.18-94.2209.237Adw JulI: XIV 90.14-1631XVIIIA 250.2-67.179I: XIV 93.18-94.2209.237Alim.Fac.I: XIV 94.17-95.10130. 231I: XIV 94.17-95.10130. 231130. 231I: VI 435.752I: XIV 94.17-95.10130. 231130. 231132.233-234I: VI 436.10209I: XIV 99.14-10.3231124.14I: VI 436.10209I: XIV 99.14-10.3231I: VI 436.56-7181I: XIV 103.6-14132.233-234I: VI 436.56-7181I: XIV 104.7-8233I: VI 653.1-4100.215V130.14-131.157I: XIV 454.2-780V144.7-942Aliw 455.7124.141249.14-16234I: VI 1035	4.17.1.4	56		
Flavius JosephusI: XIV 45.18–46.1134. 211. 237Antiquitates JudaicaeI: XIV 45.2–52386 292.3–293158–59I: XIV 46.9–1229. 3212 581–7 (95.)59I: XIV 46.3–39.3136. 2418 95.1–359I: XIV 49.3–13241I: XIV 50.1–51.6130. 233FrontinusI: XIV 56.2–72284.7.10–11185I: XIV 56.15–57.12284.7.10–11185I: XIV 56.15–57.351. 177AAI: XIV 56.14–65.351. 17751AAI: XIV 96.14–65.351. 177AAI: XIV 90.2–99.139. 231Adv.JulI: XIV 90.2–99.139. 231Adv.JulI: XIV 90.2–99.139. 231Adv.JulI: XIV 99.14–1631XVIIIA 250.2–67. 179I: XIV 93.18–94.2209. 237Alim.Fac.I: XIV 99.14–1631321I: VI 455.752I: XIV 99.14–1030. 231I: VI 455.752I: XIV 99.14–103231I: VI 456.10209I: XIV 103.07–104.9130. 231I: VI 486.10209I: XIV 103.07–104.9130. 231I: VI 486.10173At.Bil.I: XIV 104.18230II: VI 69.3.6–780V 140.7–945Ant.70. 171–172CAM238I: XIV 8.14.32–5180.124.246I: XIV 8.14.32–5180.124.246I: XIV 8.14.32–5170. 171–172CAM238I: VI 4.14.32–41231		-		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Flavius Josephus			134, 211, 237
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Antiquitates Judaicae		I: XIV 46.2-5	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		58-59	I: XIV 46.9-12	29, 32
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			I: XIV 48.13-49.3	136, 241
I: XIV 50.1-51.6 $30, 233$ Frontinus $I: XIV 53.7-9$ $66$ Strat. $I: XIV 56.15-71$ $228$ $4.7.10^{-11}$ $185$ $I: XIV 56.15-57.1$ $228$ Galen $I: XIV 56.15-57.1$ $228$ $I: XIV 56.14-65.3$ $241$ Galen $I: XIV 73.15-63.3$ $241$ $AA$ $I: XIV 73.15-73.5$ $229$ $I: II 20.04-77$ $209$ $I: XIV 79.02-99.33$ $9.231$ $Adv. Jul.$ $I: XIV 90.2-99.37$ $9.231$ $Adv. Jul.$ $I: XIV 90.4-160$ $31$ $32.373$ $Alim.Fac.$ $I: XIV 90.4-79.5$ $209.377$ $I: VI 455.7$ $52$ $I: XIV 94.3-9$ $238$ $I: VI 455.7$ $52$ $I: XIV 94.3-9$ $233$ $I: VI 455.7$ $52$ $I: XIV 94.3-9.3$ $231$ $I: VI 476.7-10$ $233$ $I: XIV 93.4-7.43$ $232.324$ $I: VI 486.10$ $209$ $I: XIV 03.7-104.9$ $123.2324$ $I: VI 486.10$ $209$ $I: XIV 103.7-104.9$ $233.234$ $I: VI 63.5-7$ $183$ $I: XIV 104.7-8$ $233.234$ $I: VI 63.5-7$ $183$ $I: XIV 104.7-8$ $233.234$ $I: VI 63.5-7$ $80.5$ $V144.7-9$ $45.5$ Ant.Bon.Mal. Succ. $I: XIV 2.3-13$ $70,171-72$ $CAM$ $I: XIV 2.4,13.2.5.7$ $23.6$ $I: XIV 2.4,13.2.7$ $23.6$ $I: XIV 2.4,14.32.5.7$ $86, 186$ $1224.2$ $46$ $I: XIV 2.4,14.32.5.7$ $17.5$ $1249.13-15$ $23.23.234$ $I: XIV 2.4,14.32.5.7$	8 95.1-3		I: XIV 49.3-13	241
FrontinusI: XIV 53.7–966Strat.I: XIV 56.2–7228 $4.7.0-11$ 185I: XIV 56.2–7.1228I: XIV 65.15–67.1241185I: XIV 65.14–65.3241GalenI: XIV 65.14–65.351. 177AAI: XIV 65.14–65.3240I: II 215.5–747I: XIV 72.14–73.2126126I: II 220.4–17209I: XIV 90.14–163131XVIIIA 250.2–67. 179I: XIV 93.18–94.2209. 237Alim.Fac.I: XIV 93.18–94.2209. 237130. 231I: VI 476.7–10233I: XIV 93.14–95.10130. 231I: VI 476.7–10233I: XIV 93.14–10.3241I: VI 476.7–10233I: XIV 93.14–10.3241I: VI 476.7–10233I: XIV 93.14–10.3241I: VI 476.7–10233I: XIV 103.17–104.9130I: VI 476.7–13183I: XIV 103.17–104.9130I: VI 651.6–6, 61.8209I: XIV 104.7–8233II: VI 651.6–7181II: XIV 64.1820II: VI 683.1–4110. 215V 130.14–131.157II: VI 683.1–4110. 215V 130.14–131.157II: VI 63.6–780V 144.7–945AntBor.Mad. Succ.I: XIV 2.423I: XIV 2.4–2.370. 171–172CAMII: XIV 2.421124,91-15223I: XIV 3.16–171751249,13–15223I: XIV 3.16–171751249,13–15223 <t< td=""><td></td><td></td><td></td><td>130, 233</td></t<>				130, 233
4.7.10-11185I: XIV 56.15–57.1228 $Galen$ I: XIV 64.15–65.3241 $Galen$ I: XIV 65.14–65.351.177 $AA$ I: XIV 72.14–73.2126I: II 215.5–747I: XIV 72.14–73.2126I: II 220.14–17209I: XIV 90.2–99.139.231 $Adv. Jul.$ I: XIV 90.2–99.139.23131XVIIIA 250.2–67.179I: XIV 94.3–9238I:VI 455.752I: XIV 94.3–9238I:VI 455.752I: XIV 94.3–9231I: VI 455.752I: XIV 99.4–6, 7–13241I: VI 456.7–10233I: XIV 99.4–6, 7–13241I: VI 456.70.90I: XIV 90.4–7.4132.233–234II: VI 661.26, 617.8209I: XIV 103.17–10.4130II: VI 68.1–10173At.Bil.II: XIV 104.7–8233II: VI 68.1–10173At.Bil.II: XIV 104.7–8236II: VI 68.1–10173At.Bil.II: XIV 104.7–8236II: VI 68.3–4110.215V 130.14–131.15711II: VI 68.1–10173At.Bil.II: XIV 2.3–1370.171–172Ant.Bon.Mal. Succ.I: XIV 2.3–1370.171–172CAMI: XIV 2.421I 247.8–9223223I: XIV 3.17–4.11174I 249.1–1542I: XIV 3.17–4.11175I 249.1–1542I: XIV 3.17–4.11175I 249.1–1542I: XIV 3.17–4.11174I 249.1–1542<	Frontinus		I: XIV 53.7-9	66
Image: Note of the set of t	Strat.		I: XIV 56.2-7	228
GalenI: XIV 65:14-65:351, 177AAI: XIV 72.14-73.2126I: II 215.5-747I: XIV 73.15-18229I: II 220.14-17209I: XIV 90.2-99.139, 231Adv. Jul.I: XIV 90.2-99.139, 231Adv. Jul.I: XIV 90.14-1631XVIIIA 250.2-67, 179I: XIV 93.18-94.2209, 237Alim.Fac.I: XIV 94.3-9238I: VI 455.752I: XIV 94.3-9238I: VI 456.7-10233I: XIV 99.14-100.3231I: VI 456.7183I: XIV 99.14-100.3231I: VI 466.10209I: XIV 99.14-100.3231II: VI 657 12-13183I: XIV 103.7-104.9130II: VI 655.6-7181II: XIV 104.7-8233II: VI 661.2, 617.8209I: XIV 104.7-8233II: VI 683.1-4110, 215V 130.14-131.157II: VI 683.1-4110, 215V 130.14-131.157II: VI 685.6-780V 144.7-945Ant.Bon.Mal. Succ.I: XIV 2.3-1370, 171-172Ant.Bon.Mal. Succ.I: XIV 2.3-1370, 171-172I: XIV 3.16-17175I 249.13-15223I: XIV 3.16-17175I 249.13-15223I: XIV 3.16-17175I 249.13-1542I: XIV 3.17-4.11174I 249.13-1542I: XIV 3.17-4.11174I 249.13-1542I: XIV 3.17-4.11174I 249.13-1542I: XIV 3.16-121	4.7.10-11	185	I: XIV 56.15-57.1	228
AAI: XIV 72.14-73.2126I: II 215.5-747I: XIV 73.15-18229I: II 220.14-17209I: XIV 90.14-1631XVIIIA 250.2-67, 179I: XIV 90.14-1631XVIIIA 250.2-67, 179I: XIV 93.18-94.2209, 237Alim.Fac.I: XIV 94.17-95.10130, 231I: VI 455.752I: XIV 99.14-100.3231I: VI 455.752I: XIV 99.14-100.3231I: VI 456.10209I: XIV 99.14-100.3231I: VI 667.12-13183I: XIV 103.6-14132, 233-234II: VI 667.12-13183I: XIV 103.17-104.9130II: VI 635.6-7181II: XIV 164.18230II: VI 635.6-7181II: XIV 164.18230II: VI 635.6-780V 144.7-945Ant.Bon.Mal. Succ.238I: XIV 2.410, 215V 130.14-131.157II: VI 635.6-780V 144.7-945Ant.Bon.Mal. Succ.238I: XIV 2.4211247.8-9223I: XIV 2.4211247.8-9223I: XIV 3.16-171751249.13-15223I: XIV 3.16-171751249.13-1542I: XIV 3.16-171751249.13-15223I: XIV 3.16-171751249.13-1542I: XIV 3.16-171751249.13-15223I: XIV 3.16-171751249.13-1542I: XIV 3.16-23136227Caus.Morb.I:			I: XIV 64.15-65.3	241
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Galen		I: XIV 65.14-65.3	51, 177
I: II 220.14–17209I: XIV 90.2–99.139, 231Adv. Jul.I: XIV 90.14–1631XVIIIA 250.2–67, 179I: XIV 93.18–94.2209, 237Alim.Fac.I: XIV 94.3–9238I:VI 455.752I: XIV 94.3–9238I:VI 455.752I: XIV 94.7–95.10130, 231I: VI 456.7–10233I: XIV 99.4–6, 7–13241I: VI 456.7120209I: XIV 99.4–6, 7–13231II: VI 567 12–13183I: XIV 103.17–104.9130II: VI 616.12, 617.8209I: XIV 104.7–8233II: VI 635.6–7181II: XIV 164.18230III: VI 631.1–10173AtBil11: XIV 164.18230III: VI 633.6–780V 130.14–131.157II: VI 635.6–780V 144.7–945Ant.Bon.Mal. Succ.I:I: XIV 1.8–2.1724, 171V I 801.9–11238I: XIV 2.3–1370, 171–172CAMI: XIV 2.4421I 247.8–9223I: XIV 3.16–17175I 249.13–15223I: XIV 3.17–4.11174I 249.11–1542I: XIV 3.14–14231VII 9.5–7, 11.14–16154I: XIV 3.17–4.11174I 249.13–15254I: XIV 9.11–10.1266III: XI 38.1–3254I: XIV 9.11–10.1266III: XI 38.1–3254I: XIV 9.11–10.1266III: VII 135.5–727, 29–30I: XIV 2.14–14=1872, 176, 207Comm. in Epid. II </td <td>AA</td> <td></td> <td>I: XIV 72.14-73.2</td> <td>126</td>	AA		I: XIV 72.14-73.2	126
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	I: II 215.5–7	47	I: XIV 73.15-18	229
XVIIIA 250.2-67, 79I: XIV 93.18-94.2209, 237Alim.Fac.I: XIV 94.3-9238I:VI 455.752I: XIV 94.3-9238I:VI 455.752I: XIV 94.17-95.10130, 231I: VI 456.10209I: XIV 99.4-100.3231II: VI 567 12-13183I: XIV 103.6-14132, 233-234II: VI 661.2, 617.8209I: XIV 103.7-104.9130II: VI 663.6-7181II: XIV 164.18230III: VI 635.6-7181II: XIV 164.18230III: VI 635.6-780V 144.7-945Ant.Bon.Mal. Succ.7I: XIV 2.3-1370, 171-172CAMI: XIV 2.3-1370, 171-172CAMI: XIV 3.4, 32.5fI.86, 186I 224.246I: XIV 3.16-17175I 249.13-15223I: XIV 3.16-17175I 249.13-1542I: XIV 3.17-4.11174I 249.1-1542I: XIV 4.13-14231VII 9.5-7, 11.14-16154I: XIV 4.13-14231VII 9.5-7, 11.14-16254I: XIV 2.0-6-23.1136.240I: VII 133.1-3254I: XIV 2.4-4-9227III: VII 13.14-16224I: XIV 2.4-4-9227III: VII 13.14-1624 <td< td=""><td>I: II 220.14–17</td><td>209</td><td>I: XIV 90.2-99.13</td><td>9, 231</td></td<>	I: II 220.14–17	209	I: XIV 90.2-99.13	9, 231
Alim.Fac.I: XIV 94.3-9238I:VI 455.752I: XIV 94.17-95.10130, 231I: VI 476.7-10233I: XIV 99.4-6, 7-13241I: VI 486.10209I: XIV 99.4-6, 7-13241I: VI 567 12-13183I: XIV 99.14-100.3231II: VI 612.10209I: XIV 103.6-14132, 233-234II: VI 616.12, 617.8209I: XIV 104.7-8233II: VI 635.6-7181II: XIV 164.18230III: VI 683.1-4110, 215V 130.14-131.157II: VI 635.6-7180V 144.7-945Ant.Bon.Mal. Succ.I: XIV 2.3-1370, 171-172I: XIV 2.3-1370, 171-172CAMII: XIV 2.421I 247.8-9223I: XIV 3.16-17175I 249.13-15223I: XIV 3.16-17175I 249.13-15223I: XIV 3.16-17175I 249.13-1542I: XIV 4.13-14231VII 9.5-7, 11.14-16154I: XIV 4.13-14231VII 9.5-7, 11.14-16154I: XIV 2.0.6-23.1136, 240I: VII 135.5-727, 29-30I: XIV 20.16-23.1136, 240I: VII 135.5-727, 29-30I: XIV 24.4-9227III: VII 131.14-16224I: XIV 25.1-7240CMG V.10.1266.12-1538I: XIV 25.1-7240CMG V.10.126.12-1538I: XIV 30.14-1666Comp. Med. Gen.11I: XIV 30.2.5-9186I: XIII 364.1-582, 183 <td>Adv. Jul.</td> <td></td> <td>I: XIV 90.14–16</td> <td>31</td>	Adv. Jul.		I: XIV 90.14–16	31
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	XVIIIA 250.2–6	7, 179	I: XIV 93.18-94.2	209, 237
I: VI 476.7-10233I: XIV 99.4-6, 7-13241I: VI 486.10209I: XIV 99.14-100.3231II: VI 567 12-13183I: XIV 103.6-14132, 233-234II: VI 612.10209I: XIV 103.17-104.9130II: VI 616.12, 617.8209I: XIV 104.7-8233II: VI 635.6-7181II: XIV 164.18230III: VI 683.1-4110, 215V 130.14-131.157II: VI 635.6-780V 144.7-945Ant.Bon.Mal. Succ.1I: XIV 1.8-2.1724, 171VI 801.9-11238I: XIV 2.3-1370, 171-172CAM1I: XIV 2.4, 32.5ff.86, 186I 224.246I: XIV 2.421I 247.8-9223I: XIV 3.16-17175I 249.13-15223I: XIV 3.16-17175I 249.13-15223I: XIV 3.17-4.11174I 249.11-1542I: XIV 4.13-14231VII 9.5-7, 11.14-16154I: XIV 5.13-13.16227Caus.Morb.1I: XIV 5.13-13.16227Caus.Symp.1I: XIV 2.0.16-23.1136, 240I: VII 135.5-727, 29-30I: XIV 2.4.4-9227III: VII 131.4-16224I: XIV 2.4.4-9227III: VII	Alim.Fac.		I: XIV 94.3-9	238
I: VI 486.10209I: XIV 99.14-100.3231II: VI 567 12-13183I: XIV 103.6-14132, 233-234II: VI 616.12, 617.8209I: XIV 103.17-104.9130II: VI 616.12, 617.8209I: XIV 104.7-8233II: VI 635.6-7181II: XIV 164.18230III: VI 683.1-4110, 215V 130.14-131.157II: VI 635.6-780V 144.7-945Ant.Bon.Mal. Succ.II: XIV 2.3-1370, 171-172CAMI: XIV 2.4, 32.5 ff.86, 186I 224.246I: XIV 2.421I 247.8-9223I: XIV 3.16-17175I 249.13-15I: XIV 3.16-17175I 249.13-1542I: XIV 4.11-5.2130Caus. Morb.I: XIV 4.13-14231VII 9.5-7, 11.14-16I: XIV 5.13-13.16227Caus. Morb.I: XIV 2.0.16-23.1136, 240I: VII 35.5-7I: XIV 2.0.16-23.1136, 240I: VII 135.5-7I: XIV 2.4.4-9227III: VII 131.4-16I: XIV 2.4.4-9227III: VII 135.5-7I: XIV 2.4.4-9227III: VII 135.1-3I: XIV 2.4.4-9227III: VII 135.5-7I: XIV 2.4.4-9227III: VII 135.5-7 <t< td=""><td>I:VI 455.7</td><td>52</td><td>I: XIV 94.17-95.10</td><td>130, 231</td></t<>	I:VI 455.7	52	I: XIV 94.17-95.10	130, 231
II: VI 567 12–13183I: XIV 103.6–14132, 233–234II: VI 612.10209I: XIV 103.17–104.9130II: VI 66.12, 617.8209I: XIV 104.7–8233II: VI 635.6–7181II: XIV 164.18230III: VI 681.1–10173At BilII: XIV 164.18230III: VI 683.1–4110, 215V 130.14–131.157II: VI 635.6–780V 144.7–945Ant.Bon.Mal. Succ.II: XIV 2.3–1370, 171–172CAMI: XIV 2.421I 247.8–9223I: XIV 3.16–17175I 249.13–15223I: XIV 3.16–17175I 249.13–1542I: XIV 4.13–14231VII 9.5–7, 11.14–16154I: XIV 5.13–13.16227Caus.Morb.II: XIV 2.0.16–23.1136, 240I: VII 135.5–727, 29–30I: XIV 2.4.4–9227III: VII 31.4–16224I: XIV 2.4.4–9227III: VII 213.14–16224I: XIV 2.4.4–9227III: VII 135.5–727, 29–30I: XIV 2.4.4–9227III: VII 213.14–16224I: XIV 2.4.4–9227III: VII 213.14–16224I: XIV 2.4.4–9227III: VII 213.14–16224I: XIV 2.5.1–7240CMG V10.1 266.12–1538I: XIV 30.14–1666Comp. Med. Gen.I: XIV 30.14–16I: XIV 30.14–1666I: XIII 364.1–582, 183	I: VI 476.7-10	233	I: XIV 99.4-6, 7-13	241
II: VI 612.10209I: XIV 103.17-104.9130II: VI 616.12, 617.8209I: XIV 104.7-8233II: VI 635.6-7181II: XIV 164.18230III: VI 635.6-7181II: XIV 164.18230III: VI 635.6-7100, 215V 130.14-131.157II: VI 635.6-780V 144.7-945Ant.Bon.Mal. Succ.1I: XIV 2.3-1370, 171-172CAMI: XIV 2.421I 247.8-9223I: XIV 3.16-17175I 249.13-15223I: XIV 3.16-17175I 249.13-15223I: XIV 3.17-4.11174I 249.11-1542I: XIV 4.13-14231VII 9.5-7, 11.14-16154I: XIV 5.13-13.16227Caus.Morb.1I: XIV 20.16-23.1136, 240I: VII 135.5-727, 29-30I: XIV 24.4-9227III: VII 213.14-16224I: XIV 24.4-9227III: VII 213.14-16224I: XIV 24.4-9227III: VII 213.14-16224I: XIV 20.16-23.1136, 240I: VII 135.5-727, 29-30I: XIV 24.4-9227III: VII 213.14-16224I: XIV 24.4-9227III: VII 213.14-16224I: XIV 25.1-7240CMG V10.1 266.12-1538I: XIV 30.14-1666Comp. Med. Gen.1I: XIV 30.14-1666Comp. Med. Gen.1I: XIV 30.25.9186I: XIII 364.1-582, 183	I: VI 486.10	209	I: XIV 99.14-100.3	231
II: VI 616.12, 617.8       209       I: XIV 104.7-8       233         II: VI 635.6-7       181       II: XIV 164.18       230         III: VI 681.1-10       173       At.Bil       11: XIV 164.18       230         III: VI 683.1-4       110, 215       V 130.14-131.1       57       57         II: VI 635.6-7       80       V 144.7-9       45         Ant.       Bon.Mal. Succ.       124.171       VI 801.9-11       238         I: XIV 2.3-13       70, 171-172       CAM       223       124.78-9       223         I: XIV 2.4       21       I 247.8-9       223       223       124.913-15       223         I: XIV 3.16-17       175       I 249.13-15       223       223       124.91.1-15       42         I: XIV 3.17-4.11       174       I 249.11-15       42       124.11       1249.11-15       42         I: XIV 4.13-14       231       VII 9.5-7, 11.14-16       154       1	II: VI 567 12-13	183	I: XIV 103.6-14	132, 233–234
II: VI 635.6-7       181       II: XIV 164.18       230         III: VI 681.1-10       173       At.Bil.         III: VI 683.1-4       110, 215       V 130.14-131.1       57         II: VI 633.6-7       80       V 144.7-9       45         Ant.       Bon.Mal. Succ.       11       238         I: XIV 1.8-2.17       24, 171       VI 801.9-11       238         I: XIV 2.3-13       70, 171-172       CAM       1         I: XIV 2.4       21       I 247.8-9       223         I: XIV 3.16-17       175       I 249.13-15       223         I: XIV 3.17-4.11       174       I 249.11-15       42         I: XIV 4.13-14       231       VII 9.5-7, 11.14-16       154         I: XIV 5.13-13.16       227       Caus.Morb.       154         I: XIV 9.11-10.12       66       III: IX 138.1-3       254         I: XIV 9.11-10.12       66       III: IX 138.1-3       254         I: XIV 20.7-10       239       Caus. Symp.       124.44         I: XIV 20.7-10       239       Caus. Symp.       124.44         I: XIV 20.16-23.1       136, 240       1: VII 135.5-7       27, 29-30         I: XIV 20.16-23.1       136, 240       1	II: VI 612.10	209	I: XIV 103.17-104.9	130
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	, ,	209	I: XIV 104.7-8	233
III: VI 683.1-4       110, 215       V 130.14-131.1       57         II: VI 635.6-7       80       V 144.7-9       45         Ant.       Bon.Mal. Succ.       1       238         I: XIV 1.8-2.17       24, 171       VI 801.9-11       238         I: XIV 2.3-13       70, 171-172       CAM       1         I: XIV 2.4       21       I 224.2       46         I: XIV 3.16-17       175       I 249.13-15       223         I: XIV 3.16-17       175       I 249.13-15       42         I: XIV 3.17-4.11       174       I 249.11-15       42         I: XIV 4.11-5.2       130       Caus.Morb.       154         I: XIV 4.13-14       231       VII 9.5-7, 11.14-16       154         I: XIV 9.11-10.12       66       III: IX 138.1-3       254         I: XIV 20.7-10       239       Caus.Symp.       1         I: XIV 20.16-23.1       136, 240       I: VII 135.5-7       27, 29-30         I: XIV 20.16-23.1       136, 240       I: VII 135.5-7       27, 29-30         I: XIV 20.16-23.1       136, 240       I: VII 135.5-7       27, 29-30         I: XIV 20.16-23.1       136, 240       I: VII 135.5-7       27, 29-30         I: XIV 20.1	II: VI 635.6-7	181	II: XIV 164.18	230
II: VI 635.6-780V 144.7-945Ant.Bon.Mal. Succ.I: XIV 1.8-2.1724, 171VI 801.9-11238I: XIV 2.3-1370, 171-172CAMI: XIV 2.421I 224.246I: XIV 3.16-17175I 249.13-15223I: XIV 3.16-17175I 249.13-15223I: XIV 3.17-4.11174I 249.11-1542I: XIV 4.13-14231VII 9.5-7, 11.14-16154I: XIV 5.13-13.16227Caus.Morb.154I: XIV 20.7-10239Caus. Symp.154I: XIV 20.16-23.1136, 240I: VII 135.5-727, 29-30I: XIV 24.4-9227III: VII 213.14-16224I: XIV 24.4-9227III: VII 213.14-16224I: XIV 25.1-7240CMG V10.1 266.12-1538I: XIV 30.14-1666Comp. Med. Gen.1I: XIV 32.5-9186I: XIII 364.1-582, 183	III: VI 681.1-10	173	At.Bil.	
Ant.Bon.Mal. Succ.I: XIV 1.8–2.1724, 171VI 801.9–11238I: XIV 2.3–1370, 171–172 $CAM$ I: XIV 2.14, 32.5ff.86, 186I 224.246I: XIV 2.421I 247.8–9223I: XIV 3.16–17175I 249.13–15223I: XIV 3.17–4.11174I 249.11–1542I: XIV 4.11–5.2130Caus.Morb.1I: XIV 4.13–14231VII 9.5–7, 11.14–16154I: XIV 5.13–13.16227Caus.Puls.1I: XIV 20.7–10239Caus. Symp.1I: XIV 20.16–23.1136, 240I: VII 135.5–727, 29–30I: XIV 24.4–9227III: VII 213.14–16224I: XIV 24.4–9227Comm. in Epid. II1I: XIV 25.1–7240CMG V10.1 266.12–1538I: XIV 30.14–1666Comp. Med. Gen.1I: XIV 32.5–9186I: XIII 364.1–582, 183	III: VI 683.1–4	110, 215	V 130.14–131.1	57
I: XIV 1.8-2.17       24, 171       VI 801.9-11       238         I: XIV 2.3-13       70, 171-172       CAM         I: XIV 2.14, 32.5ff.       86, 186       I 224.2       46         I: XIV 2.4       21       I 247.8-9       223         I: XIV 3.16-17       175       I 249.13-15       223         I: XIV 3.17-4.11       174       I 249.11-15       42         I: XIV 4.13-14       231       VII 9.5-7, 11.14-16       154         I: XIV 5.13-13.16       227       Caus.Morb.       1         I: XIV 20.7-10       239       Caus. Symp.       254         I: XIV 20.7-10       239       Caus. Symp.       224         I: XIV 24.4-9       227       III: VII 35.5-7       27, 29-30         I: XIV 20.16-23.1       136, 240       I: VII 135.5-7       27, 29-30         I: XIV 20.4-9       227       III: VII 213.14-16       224         I: XIV 24.4-9       227       III: VII 213.14-16       224         I: XIV 25.1-7       240       CMG V.10.1 266.12-15       38         I: XIV 30.14-16       66       Comp. Med. Gen.       38         I: XIV 30.14-16       66       I: XIII 364.1-5       82, 183	II: VI 635.6-7	80	V 144.7–9	45
I: XIV 2.3-1370, 171-172CAMI: XIV 2.14, 32.5ff.86, 186I 224.246I: XIV 2.421I 247.8-9223I: XIV 3.16-17175I 249.13-15223I: XIV 3.17-4.11174I 249.11-1542I: XIV 4.11-5.2130Caus.Morb.I: XIV 4.13-14231VII 9.5-7, 11.14-16I: XIV 5.13-13.16227Caus.Puls.I: XIV 9.11-10.1266III: IX 138.1-3254I: XIV 20.7-10239Caus. Symp.I: XIV 24.4-9227III: VII 135.5-727, 29-30I: XIV 24.4-9227III: VII 135.1-4224I: XIV 24.4-9227III: VII 135.1-3254I: XIV 24.14-1872, 176, 207Comm. in Epid. II1I: XIV 25.1-7240CMG V10.1 266.12-1538I: XIV 30.14-1666Comp. Med. Gen.1I: XIV 32.5-9186I: XIII 364.1-582, 183	Ant.		Bon.Mal. Succ.	
I: XIV 2.14, 32.5ff.       86, 186       I 224.2       46         I: XIV 2.4       21       I 247.8–9       223         I: XIV 3.16–17       175       I 249.13–15       223         I: XIV 3.17–4.11       174       I 249.11–15       42         I: XIV 4.11–5.2       130       Caus.Morb.       154         I: XIV 4.13–14       231       VII 9.5–7, 11.14–16       154         I: XIV 5.13–13.16       227       Caus.Puls.       154         I: XIV 9.11–10.12       66       III: IX 138.1–3       254         I: XIV 20.7–10       239       Caus. Symp.       223         I: XIV 20.16–23.1       136, 240       I: VII 135.5–7       27, 29–30         I: XIV 24.4–9       227       III: VII 213.14–16       224         I: XIV 24.14–18       72, 176, 207       Comm. in Epid. II       224         I: XIV 25.1–7       240       CMG V10.1 266.12–15       38         I: XIV 30.14–16       66       Comp. Med. Gen.       38         I: XIV 32.5–9       186       I: XIII 364.1–5       82, 183	•	24, 171	VI 801.9–11	238
I: XIV 2.4       21       I 247.8–9       223         I: XIV 3.16–17       175       I 249.13–15       223         I: XIV 3.17–4.11       174       I 249.11–15       42         I: XIV 4.11–5.2       130       Caus.Morb.       154         I: XIV 4.13–14       231       VII 9.5–7, 11.14–16       154         I: XIV 5.13–13.16       227       Caus.Puls.       154         I: XIV 9.11–10.12       66       III: IX 138.1–3       254         I: XIV 20.7–10       239       Caus. Symp.       27, 29–30         I: XIV 20.16–23.1       136, 240       I: VII 135.5–7       27, 29–30         I: XIV 24.4–9       227       III: VII 213.14–16       224         I: XIV 24.4–9       227       Comm. in Epid. II       1         I: XIV 25.1–7       240       CMG V10.1 266.12–15       38         I: XIV 30.14–16       66       Comp. Med. Gen.       1         I: XIV 32.5–9       186       I: XIII 364.1–5       82, 183	I: XIV 2.3-13	70, 171–172	CAM	
I: XIV 3.16–17       175       I 249.13–15       223         I: XIV 3.17–4.11       174       I 249.11–15       42         I: XIV 4.11–5.2       130       Caus.Morb.       154         I: XIV 4.13–14       231       VII 9.5–7, 11.14–16       154         I: XIV 5.13–13.16       227       Caus.Puls.       154         I: XIV 9.11–10.12       66       III: IX 138.1–3       254         I: XIV 20.7–10       239       Caus. Symp.       27, 29–30         I: XIV 20.16–23.1       136, 240       I: VII 135.5–7       27, 29–30         I: XIV 24.4–9       227       III: VII 213.14–16       224         I: XIV 24.14–18       72, 176, 207       Comm. in Epid. II       11         I: XIV 30.14–16       66       Comp. Med. Gen.       38         I: XIV 30.25–9       186       I: XIII 364.1–5       82, 183	I: XIV 2.14, 32.5 ff.	86, 186	•	46
I: XIV 3.17-4.11       174       I 249.11-15       42         I: XIV 3.17-4.11       174       I 249.11-15       42         I: XIV 4.11-5.2       130       Caus.Morb.       154         I: XIV 4.13-14       231       VII 9.5-7, 11.14-16       154         I: XIV 5.13-13.16       227       Caus.Puls.       154         I: XIV 9.11-10.12       66       III: IX 138.1-3       254         I: XIV 20.7-10       239       Caus. Symp.       277, 29-30         I: XIV 20.16-23.1       136, 240       I: VII 135.5-7       27, 29-30         I: XIV 24.4-9       227       III: VII 213.14-16       224         I: XIV 24.4-9       227       Comm. in Epid. II       11         I: XIV 25.1-7       240       CMG V10.1 266.12-15       38         I: XIV 30.14-16       66       Comp. Med. Gen.       11         I: XIV 32.5-9       186       I: XIII 364.1-5       82, 183	I: XIV 2.4	21	I 247.8–9	223
I: XIV 4.11-5.2       130       Caus.Morb.         I: XIV 4.13-14       231       VII 9.5-7, 11.14-16       154         I: XIV 5.13-13.16       227       Caus.Puls.       154         I: XIV 9.11-10.12       66       III: IX 138.1-3       254         I: XIV 20.7-10       239       Caus. Symp.       27, 29-30         I: XIV 24.4-9       227       III: VII 135.5-7       27, 29-30         I: XIV 24.4-9       227       III: VII 213.14-16       224         I: XIV 24.14-18       72, 176, 207       Comm. in Epid. II       11         I: XIV 25. 1-7       240       CMG V10.1 266.12-15       38         I: XIV 30.14-16       66       Comp. Med. Gen.       11: XIV 32. 5-9       186	I: XIV 3.16-17	175	I 249.13–15	223
I: XIV 4.13–14       231       VII 9.5–7, 11.14–16       154         I: XIV 5.13–13.16       227       Caus.Puls.         I: XIV 9.11–10.12       66       III: IX 138.1–3       254         I: XIV 20.7–10       239       Caus. Symp.       27, 29–30         I: XIV 20.16–23.1       136, 240       I: VII 135.5–7       27, 29–30         I: XIV 24.4–9       227       III: VII 213.14–16       224         I: XIV 24.14–18       72, 176, 207       Comm. in Epid. II       11         I: XIV 25.1–7       240       CMG V.10.1 266.12–15       38         I: XIV 30.14–16       66       Comp. Med. Gen.       11         I: XIV 32.5–9       186       I: XIII 364.1–5       82, 183		174	I 249.11–15	42
I: XIV 5.13-13.16       227       Caus.Puls.         I: XIV 9.11-10.12       66       III: IX 138.1-3       254         I: XIV 20.7-10       239       Caus. Symp.         I: XIV 20.16-23.1       136, 240       I: VII 135.5-7       27, 29-30         I: XIV 24.4-9       227       III: VII 213.14-16       224         I: XIV 25.1-7       240       CMG V.10.1 266.12-15       38         I: XIV 30.14-16       66       Comp. Med. Gen.       1: XIV 32. 5-9       186	I: XIV 4.11–5.2	130	Caus.Morb.	
I: XIV 9.11–10.12       66       III: IX 138.1–3       254         I: XIV 20.7–10       239       Caus. Symp.       1         I: XIV 20.16–23.1       136, 240       I: VII 135.5–7       27, 29–30         I: XIV 24.4–9       227       III: VII 213.14–16       224         I: XIV 24.14–18       72, 176, 207       Comm. in Epid. II       1         I: XIV 25. 1–7       240       CMG V.10.1 266.12–15       38         I: XIV 30.14–16       66       Comp. Med. Gen.       1         I: XIV 32. 5–9       186       I: XIII 364.1–5       82, 183		231		154
I: XIV 20.7-10       239       Caus. Symp.         I: XIV 20.16-23.1       136, 240       I: VII 135.5-7       27, 29-30         I: XIV 24.4-9       227       III: VII 213.14-16       224         I: XIV 24.14-18       72, 176, 207       Comm. in Epid. II       11         I: XIV 25.1-7       240       CMG V.10.1 266.12-15       38         I: XIV 30.14-16       66       Comp. Med. Gen.       11         I: XIV 32.5-9       186       I: XIII 364.1-5       82, 183		•		
I: XIV 20.16-23.1       136, 240       I: VII 135.5-7       27, 29-30         I: XIV 24.4-9       227       III: VII 213.14-16       224         I: XIV 24.14-18       72, 176, 207       Comm. in Epid. II       11         I: XIV 25.1-7       240       CMG V.10.1 266.12-15       38         I: XIV 30.14-16       66       Comp. Med. Gen.       11         I: XIV 32. 5-9       186       I: XIII 364.1-5       82, 183		66		254
I: XIV 24.4–9       227       III: VII 213.14–16       224         I: XIV 24.14–18       72, 176, 207       Comm. in Epid. II       200         I: XIV 25.1–7       240       CMG V.10.1 266.12–15       38         I: XIV 30.14–16       66       Comp. Med. Gen.       200         I: XIV 32.5–9       186       I: XIII 364.1–5       82, 183		239	5 1	
I: XIV 24. 14–18       72, 176, 207       Comm. in Epid. II         I: XIV 25. 1–7       240       CMG V.10.1 266.12–15       38         I: XIV 30.14–16       66       Comp. Med. Gen.       1: XIV 32. 5–9       186       I: XIII 364.1–5       82, 183		136, 240		27, 29–30
I: XIV 25. 1–7       240       CMG V.10.1 266.12–15       38         I: XIV 30.14–16       66       Comp. Med. Gen.         I: XIV 32. 5–9       186       I: XIII 364.1–5       82, 183				224
I: XIV 30.14–16       66       Comp. Med. Gen.         I: XIV 32. 5–9       186       I: XIII 364.1–5       82, 183				_
I: XIV 32. 5–9 186 I: XIII 364.1–5 82, 183				38
			•	
I: XIV 42.11–13 186, 229 I: XIII 364.9–365.1 220				
	1: XIV 42.11–13	186, 229	l: XIII 364.9–365.1	220

Comp. Med. Gen. (cont.)	
I: XIII 366.2–776	179
II: XIII 376.2–5	179
II: XIII 416.11–12	21
II:XIII 431.12–16	243
II: XIII 441. 9–11	170
II: XIII 463.4–7	186
II: XIII 476.6	240
II: XIII 494.10, 557.3–4	182
II: XIII 629.1–2	240
IV: XIII 661.12-16	156, 251
V: XIII 780.16–17	231
V: XIII 787.12-788.4	216
V: XIII 814.9–12	232
VI: XIII 886.17-887.6	44-45
VII: XIII 1030.14	126
Comp. Med. Loc.	
I: XII 392.4, 404.11–12	110
I: XII 404.10–11	108, 212, 214
I: XII 409.4	110, 215
I: XII 410.8–12	224
I: XII 423.2-3	226
I: XII 425.16-426.1	122, 226
I: XII 435.1–5	20
I: XII 438.12–13	186
I: XII 493.15	249
II: XII 580.2	249
II: XII 582.18–583.8	140
III: XII 622.16	216
III: XII 652.6	216
IV: XII 727.5–730.4	156, 251
IV: XII 800.15	80, 181
V: XII 813.11–12	216
V: XII 845.17	250
V: XII 860.5	216
VII: XIII 33.3–5	170
VII: XIII 45.10–11	116, 220
VII: XIII 48. 3–4	80, 181
VII. XIII 48. 3–4 VIII: XIII 171.10–12	
VIII: XIII 171.10–12 VIII: XIII 185.4	110, 215 228
VIII: XIII 185.16	126
IX: XIII 264.1	
IX: XIII 204.1 IX: XIII 310.17, 311.4, 18	216
X: XIII 310.17, 311.4, 18 X: XIII 321 ff.	110, 214
	178
X: XIII 327.9–15	116, 220
Gloss.	.6
XIX 62.2	46
Diff. Feb.	6
I: VII 290.2–11	246

Diff. Puls.	
III: VIII 636.3–4	208
Diff. Resp.	
II: VII 850.8-851.15	246
Dig.Puls.	
I: VIII 785.4–6	58
El. Ex Hipp.	
II: I 499.1–501.11	78, 180
Hipp. Aph.	
I: XVIIb 413.11–17	154
I: XVIIb 441.1–6	249
XVIIb 536.1-6	35
XVIIb 664.1	34-35
XVIIb 664.2	152, 249
XVIIIa 124.5–8	34
Hipp. Elem.	
I: I 415.15–16	222
I: I 416 6–14	40
I: I 418.15–17	42
I: I 418.15–419.2	42
Hipp. Epid.	
III: II:XVIIa 576.1–5	45
III: II:XVIIa 635.8–10	120, 224
VI: XVIIa 951.1–953.11	170
VI IV:XVIIb 162.7–9	43
VI VI:XVIIb 336.12-337	.3
	38
HNH	
XV 36.12-37.1	40
XV 105.2-4	58
HVA	
XV 540.4-541.8	39
Lib.Prop.	
XIX 8.2-4	46
XIX 10.15–11.1	48
XIX 15.18–16.2	46
XIX 18.15–19.1	18, 207
Loc. Aff.	
V: VIII 355.5-11	226, 250
VI: VIII 422.16	250
MM	
I: X 1.2	46
I: X 25.5–6	216
V: X 372.17-18	8
VI: X 405.2–4	
	238-239
VII: X 456.1-5	238–239 46
VII: X 456.1–5 VII: X 458.7 XII: X 832.3–5	46

XIV: X 977.7-8	78, 179	Sem.	
XIV: X 986 5-6	25	I: IV 530.4	47
XIV: X 995.3-4	251	SMT	
MMG		I: XI 382.1–384.8	76, 179, 183
I: XI 1.9	46	I: XI 405.13–17	43
II: XI 105.4	110	II: XI 465	76, 179
II: XI 143.15–144.2	134, 212, 237	II: XI 474.13	166
Morb. Diff.		III: XI 575.3–5	80, 181–182
VI 840.1-5	223	III: XI 575.6–576.1	80, 181
VI 857.18-858.15	223	III: XI 576.7-17	80
Nat.Fac.		III: XI 584.13–15	224
I: II 9.13–10.2	222	III: XI 609.12–15	220
I: II 42.18–43.3.	78	III: XI 612.10–11	78, 179
I: II 42.5–11	78, 179	V: XI 761.10-11	184
I: II 44.13–53.9	41, 80	VI: XI 793.13–15	230
I: II 45.4–7	41	VI: XI 816.13	240
I: II 47.4–8	176	VII: XII 7.10–13	216
I: II 57.2–3	180	VII: XII 56.15-17	80, 181
PHP		VII: XII 26.12	228
IV: V 385.13-15	224	VIII: XII 114.6	240
Praen.		IX: XII 174.3, 4	219
XIV 629.4	166	IX: XII 177.6–11	209
XIV 630.13-14	166	X: XII 248.8–17	230
XIV 602.11	250	X: XII 251.3–4	21
XIV 608.15-16	169	X: XII 266.18–267.6, 29	2.3-7
XIV 609.1, 633.9–10, 66	60.9–12, 626.17–627.2		110, 215
	51	X: XII 279.1–9	110, 215
XIV 650.16-651.1	47	X: XII 280.12	216
Puer.Epil.		X: XII 305.3	216
XI 357.2–7, 7–12	48	X: XII 307.18	219
XI 358.2-13	49-50	X: XII 290–309	110, 214
XI 374.8	49	XI: XII 311.14	25
XI 376.4–8, 17–21	49	XI: XII 316.1–317.4	29, 32, 226
XI 377.1-4	50	XI: XII 316.3-5	29, 30
Puls.		XI: XII 317.4–17	210, 211
VIII 453.1–3	48	XI: XII 318.14-16	235
San.Tu.		XI: XII 319.1–10	251
I: VI 15.8–13	40, 222	XI: XII 334.13–16	213
IV: VI 247.12–248.1	243	XI: XII 337.3-4	32
IV: VI 268.13–270.7	126, 229	XI: XII 338.10-339.2	33, 214
VI: VI 405.14	209	XI: XII 342.9	216
Sect.Int.		XI: XII 359.321.13–17	108, 213
I 74.10	179	XI: XII 360.9–12	217
I 77.3–7	43	XI: XII 363.3–9	216
I 79.5–8	44	XI: XII 363.14–364.19	237
I 85.15–19; 88.4–89.5	146, 244	XI: XII 365.18–366.2	219
I 89.19–20	152, 250	XI: XII 366.2–6	216, 217, 220
I 90.7–13	154, 250	XI: XII 376.1–8	156, 251

Temp.		Heliodorus
III: I 667.6–8	216	Aethiopica
III: I 684.2–4	183	4.8.5
Thras.		
V 806.2	46	Herodian
UP		2.4.9
I: III 2.11–15	226	
I: III 7.14–18	122	Herodotus
VI:III 474.16-19	118, 222	Hist.
IX: III 692.7-8	216	III 107.1-
XI:III 873.17-18	118, 222	III 111.1–11
Ut.Diss.		
II: 889.2-7	165	Hesiod
Ut.Resp.		Op.
IV: 488.17-489.4	154	383-384
Ven.Art.		
II: 779.2	46	Hippocrates
Ven.Sect.Er.		Aph.
XI 164.10-12	209	1.24, 2.36
XI 171.17–172.7	50	4.5
Vict. At.		de Decente H
51.4-52.1	181	1.7–8, IX
CMG 5.4.2 p. 441 see	ct. 56.1–57.1	de Natura H
	173	1.1-25
		2.10-11
[Galen]		de Prisca Me
Ther.Pamph.		1.1–8
XIV 96.11-297.1	66	3
XIV 307.9-10	237	Epid.
XIV 308.2-309.4	229	2.3.1
		2.3.2
Georgius Syncellus		6.2.12.1
Ecloga chronographica		de Mulierum
439.17	22	181.4
		de Natura M
Glycas		34.10-11
Annales		
108.9–11	210	Homer
		Od.
Gregorius Nyssenus		17.217-21
de Beneficentia		
9.100 13-15	59	Horace
Contra usurarios		Satires
9.199.20	59	2.4.68
Testimonia adversus Ju		
46.221.15	176	Josephus
-		Jewish Antiq

Heliodorus	
Aethiopica	
4.8.5	122
Herodian	
2.4.9	14
Herodotus	
Hist.	
III 107.1-3	227
III 111.1–112.1	227
Hesiod	
Op.	
383-384	234
Hippocrates	
Aph.	
1.24, 2.36	248
4.5	33, 152
de Decente Habitu	
1.7–8, IX 226	37
de Natura Hominis	01
1.1-25	44
2.10-11	222
de Prisca Medicina	222
1.1–8	4.4
	44 251
3 Epid.	251
	-0.
2.3.1	184
2.3.2	36, 84 68, 170
6.2.12.1	08, I70
de Mulierum Affectibus	
181.4	227
de Natura Muliebri	
34.10–11	227
Homer	
Od.	
17.217-218	80, 180
Horace	
Satires	
2.4.68	202
Josephus	
Jewish Antiquities	
8.314.5, 9.75.2	52

Justin		Old Testament	
32.4.6-8	185	Exodus	
		15.6	175
Lucan		15.21	176
Pharsalia		Malachi	
IX 587-937	189	1.11	176
Incian		Oribasius	
Lucian Charon		Collectiones	
	16-	6.38.16.1–2	16-
17.1–5 Demosthenis encomium	165	0	165 167
	208	24.29.3.1-4.1	165
47.1–7 Dimagdaa	208	Synopsis	16-
Dipsades		1.6.7.2–3	165
4.2-4	31	Ombio Urmus	
Lucretius		Orphic Hymns	
de Rerum Natura		Orphic Hymn	226
IV 641	- 0-	49.4–6	206
10 041	183	Ovid	
Marcellinus		Metamorphoses	
de Puls.			100
	154	15.379–380	122
404–407	154	Palladius	
Menander Rhetor		Comm.in Hipp.Epid.VI	
On Epideictic Speeches		2.162.19	82
376.31-377.2	56, 176	2.102.19	02
3/0.31-3/7.2	50,170	Paulus Medicus	
Nepos		1.35.1.16–17	165
Vitae: Hannibal		5.19.1	104
10-11	21, 185	7.88(4) 18-21	219
	,	7.3.18	82, 182
New Testament		7.11.6	156, 253
2 Cor			0 00
3.10	176	Pausanias	
-		VIII 4 7.1–8.1	132
Nicander			
Alexipharmaca		Periplus Maris Erythraei	
301	203	23.2, 52.3	56
Theriaca		10.97, 11.104, 12.117–118	228
32-34	324		
128–134	211	Philo Judaeus	
231-232	132	de Opificio Mundi	
282-319	102	17.3-5	58
334-336	30	de Vita Mosis	
359	189	(lib. i–ii) 275.4–276.1	58
367-371	189		
389-391	234	Philostratus	
411-437	88, 90	Heroicus	
		737.32-738.8	208

Vitae sophistarum		Crassus	
2 606.27-607.34	178	6.5.1-3	58
Vita Apollonii		de Iside et Osiride	
4 16.54–59	208	383 c–d	148, 245
8 31.6	207	Moralia	
		1057 A 7	180
Philumenus		Nicias	
de Ven. Anim.		6.6.4	56
14 9.1–4	217	Sulla	
16 1–2	104, 207	4.4.4-9	58
201-2	31		
		[Plutarch]	
Plato		de Proverbiis Alexandrino	rum
Lysis		Fr. 45 l. 1	207
214a	180		
		Ptolemy	
Meno		Syntaxis mathematica	
81a-86c	170	1,1 4 6–9	52
Phaedo		Seneca	
73a–77a	170	Troades	
		777-779	13
Pliny			
NH		Sextus Empiricus	
VII 123.6–9	148, 244	Adversus Mathematicos	
VIII 85.8–9	102	10.318	40, 42
VIII 99.1–7	234, 235	9 185.1-4	176
VIII 126 4–6	122		
X 69.4-5	183	Sextus Julius Africanus	
XII 85.1–86.1	227	Cesti	
XIII 10.5–11.1	227	3.30 = Wallraff F55a	102
XIV 63. 1-5	136	3.31.1 = Wallraff D56	22, 102, 207
XX 254.1–4	234	P.Oxy. 3 412 36–41= tlg	Cesti 5.1.52–54
XXI152-153	184		22
XXVIII 30.1	226		
XXX 128 1–6	112, 217	Soranus	
XXXVI 202.1–4	148, 245	Gyn.	
		I.39 (1) 3-6	122, 225
Plotinus			
3.2.37	177	Suetonius	
		Caes.	
Plutarch		39	15
Antony		Augustus	
85-86	208	43	13, 16
Bruta animalia ratione uti		Tiberius	
992 A11–B4	169	6	16
Cato Min.		Caligula	
3.1.1-2	17	18	16

Claudius		II 52.1–3	246
21	15		
Nero		Varro	
7	13, 16	Res Rusticae	
		1.4.5.1–3	148
Thucydides			
I 5. 2–3	166	Virgil	
II 47.4.1–6, II 51.2.1–3.1	245	Aeneid	
II 48. 1–2	247	5.545-603	14

## **General Index**

This is an index to the introduction and commentary only, not the text.

Adulteration 11, 172–174, 242 Alexandria 200 All-heal 240-241 Aloe vera 182 Amphisbaina 217 Anaxagoras 41 Andromachus 5, 25, 166 poem 7-10, 31, 186-206 Antipater 18, 167, 178 Arabic text 3, 7, 166, 242 Arria 18, 178 Arrow, poisoned 217–218 Asclepiades 9, 11, 39-43, 179-180, 222 Asthma 190–191 Atomism 9, 39, 180, 222–224 Attalus 24, 171, 185 Augustus 13 Beaver See Castoreum Blister beetle 183, 216 Cabbage 181 Caracalla see Emperors Castoreum 33-34, 213-214 Chapter headings 62–63, 309–310 Cleopatra 9–10, 21, 208, 248 Clover 182-183 Cocks 181 Complex *or* compound drugs 38, 171–172, 178-179, 220-221 Compound drugs see Complex drugs Copper ore 181 Cow horn 213 dung 214 milk 215 Crab 216 Crete 8, 51, 179 Crocodile 219 Curds and whey 182 Damocrates 8–9, 31–32, 209, 231, 233, 237-238, 241 Dedication 45-52, 165

Democritus 40-41, 43, 222 Demosthenes 175, 208 Dill 237-238 Dogmatism 43-44 Dung beetle 216 Earthworm 216 Empiricism 3, 9, 43–44, 57, 179, 219, 244 Emperors 8, 10, 18, 20, 58–59, 169–171 Epicurus 40-43, 222-223 Erasistratus 172 Eumenes 21, 185, 225 Field mouse 219 Gecko 217 Goose fat 214 Hannibal 21, 33-39, 185, 225 Hellebore 183 Hemlock 10, 183 Herophilus 172, 184 Hippocrates 10, 32-37, 170, 183-184, 222-223, 248-249 and plague 245-247 Hippopotamus 215 Honey 213, 215, 240, 252 Horn of deer 213 of cow 213 Hyena 215 Julius Africanus 22–24, 206–207 Lark, roast 217 Latin translations 4-5 Lusus Troiae 11-12, 14-18, 168, 225 Magnus of Crete 4, 5, 8, 166 Marcus Aurelius 18, 47, 56, 175–177, 220 Marsi (snake-hunters) 28-29 Maternal impression 225 Methodism 244, 250 Mithridates 9–10, 21, 24–25, 171, 175, 231

Mithridatium 10, 25 Monk's rhubarb 181 Nero 8, 10, 13, 205–206 *On Antidotes* 3, 7–10, 24–25, 29, 31–32, 41, 51, 60-61, 200, 207, 209, 212, 216, 220-221, 227-242 On Theriac to Pamphilianus 6, 10, 229, 237 Opium 174, 220 Pergamum 21, 28, 185 Perineum 167 Peritoneum 167 Piso 8, 11, 45, 58, 165–168 son 8, 11–13, 39, 50, 168–169, 180 Plato 170, 180, 242 Purgatives 32-39, 248-250 Quail 183

Rabies 11, 190, 194, 216, 242–244 Rare words 60 Resin 240–241

Rulers See emperors

Scorpion 25, 57, 59, 216–217, 219–220

Sea hare 183 Secular Games 11-12, 14-15 Severus see Emperors Sheep brains 213 Snake catching 28-30, 226-227, 234-236 Starlings 183 Style 45 Swallow, roast 213 Tetanus 193 Theriac dosage 9, 194–195 history 8, 10 recipe 3–4, 196, 201, 229 salts 2, 10, 250-253 storage and maturation 241-242 testing 171, 173–174, 242 treatises on 8 Thucydides 245-246 Viper 24, 26–32, 52, 210–211 skin 215–216 Wine, Falernian 238-240 Word frequencies 53 Xenocrates 8, 230

## Index of Significant Greek Terms

λαλέω 254 ἄγνοια 33, 214 άπροόρατος 244–245 λίτρα 252–253 άτομος 41 λόγος 43-45, 179, 223 γαλήνη 8, 186, 310 μειόω 36 γιζί 5, 228 ὄγκοι καὶ πόροι 39–42 διορισμός 33 οἴδαμεν 56, 175 διψάς 24, 26-32, 206 δόξαζω 175 πείρα 43-45, 179, 223 δρυάς 188 πτυάς 188 δύναμις 170-171, 174, 178, 181 τεχνολογέω 184 έλένιον 217 ἔνδυμα 247 φαρμακεία 34-35, 61 ένθέσμως 56, 60, 175 φθοροποιός 25, 54, 206 ἐπιβουλή 184–185 φιλόλογος 166 ἐπιχώριος 219 φιλόσοφος 166 ἔχιδνα 24, 26-32, 210-211 φιλοτιμία/ φιλότιμος 57-58 iερουργία 12-13, 168 χαλβάνη 240-241 καὶ γὰρ καὶ 165